SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Trade name: AS-CARB
Product code: No information available.
UFI: QNPK-C73F-Q00S-TFCU

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Identified uses: Concentrated agent for degreasing internal combustion engine parts with ultrasonic cleaning - washing in ultrasonic baths and bathrooms.
Uses advised against: Do not use for purposes other than those recommended.

1.3 Details of the supplier of the safety data sheet:

Manufacturer:
ASONIC d.o.o.
Tržaška cesta 134
1000 Ljubljana, Slovenia
Phone: + 386 41 566618
e-mail: order@asonic.si

1.4 Emergency telephone number:

Belgium: 070 245 245
Bulgaria: +359 2 9154 233
Croatia: +3851 2348 342 (24/7 in Croatian and English).
Czech Republic: +420 224 919 293, +420 224 915 402
Denmark: +45 8212 1212
Estonia: 112 (National emergency telephone number (Häirekeskuse number)); 16662 (nationally) and +372) 7943 794 (calling from abroad)
Finland: 0800 147 111, 09 471 977 (Open 24 hours a day)
France: + 33 (0)1 45 42 59 59
Greece: (0030) 2107793777
Hungary: +36-80-201-199 (0-24h, free of charge)
Ireland: 01 809 2566
Italy (CAP, Phone Number, City): 00165 06 68593726 (Roma); 71122 800183459 (Foggia); 80131 081-5453333 (Napoli); 161 06-49978000 (Roma); 168 06-3054343 (Roma); 50134 055-7947819 (Firenze); 27100 0382-24444 (Pavia); 20162 02-66101029 (Milano); 24127 800883300 (Bergamo); 37126 800011858 (Verona).
Latvia: Valsts ugunsdzēsības un glābšanas dienests, phone number: 112. Toksikoloģijas un sepses klīnikas Saindēšanās un zāļu informācijas centrs, Hipokrāta 2, Rīga, Latvija, LV-1038, phone number +371 67042473. Service is available 24 hours.
Lithuania: +370 (85) 2362052
Luxembourg: (+352) 8002 5500 (24/7, experts answer in French, Dutch and English)
The Netherlands: +31 (0)88 755 8000
Norway: 22 59 13 00 (Open 24 hours a day, 7 days a week.)
Portugal: +351 800 250 250
Romania: +40213183606
Slovakia: +421 2 5477 4166
Slovenia: 112
Spain: + 34 91 562 04 20 (available 24h/365 days)
Sweden: 112

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture:

2.1.1 Classification according to Regulation (EC) No 1272/2008 (CLP)

Flam. Liq. 2, H225 (Flammable liquids, Category 2, H225)
Acute Tox. 4, H302 (Acute toxicity (oral), Category 4, H302)
Skin Corr. 1B, H314 (Skin corrosion/irritation, Category 1B, H314)
Eye Dam. 1, H318 (Serious eye damage/Eye irritation, Category 1, H318)

2.2 Label elements:

2.2.1 Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word(s): Danger

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Hazard pictogram(s):

Hazard statement(s):
H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.

Precautionary statement(s):
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P235 Keep cool.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilation/lighting/... equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor/... if you feel unwell.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor/...
P321 Specific treatment (see on this label).
P330 Rinse mouth.
P363 Wash contaminated clothing before reuse.
P370 + P378 In case of fire: Use carbon dioxide (CO2), water spray, alcohol-resistant foam, dry powder to extinguish.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/container to according to regulations.

Contains:
propan-2-ol; tetrasodium ethylene diamine tetraacetate; 2-butoxyethanol; Alcohols, C9-11-iso-, C10-rich, ethoxylated; disodium metasilicate

2.3 Other hazards:
No information available.

SECTION 3: Composition/information on ingredients

3.1 Mixture

Description of the substance/mixture: No information available.

Substance	EC No.	CAS No.	Index No.	CLP-classification	Concentration % (w/w)	REACH Reg. No.
tetrasodium ethylene diamine tetraacetate	200-573-9	64-02-8	607-428-00-2	Acute Tox. 4, H302 Eye Dam. 1, H318	5 - < 10	/
disodium metasilicate	229-912-9	6834-92-0	014-010-00-8	Skin Corr. 1B, H314 STOT SE 3, H335	5 - 15	/
propan-2-ol	200-661-7	67-63-0	603-117-00-0	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	5 - 15	/
2-butoxyethanol	203-905-0	111-76-2	603-014-00-0	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Acute Tox. 3, H331	2 - 8	/
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	263-058-8	61789-40-0	/	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Acute 1, H400	3 - 8	/
Alcohols, C9-11-iso-, C10-rich, ethoxylated	616-607-4	78330-20-8	/	Acute Tox. 4, H302 Eye Dam. 1, H318	5 - 15	/

More information: Please see section 16 for the full text of H- / EUH-phrases.

SECTION 4: First aid measures

4.1 Description of first aid measures

General: No information available.

Inhalation: In case of inhalation of product/vapours, remove exposed person to fresh air. If coughing and/or other breathing problems occur - seek medical help immediately.

Skin contact**:** Wash skin with soap and water. If clothes and shoes are dirty, they should be taken off. Seek medical advice if irritation occurs.

Eye contact: If contact occurs, flush eyes with water for at least 15 minutes, keeping eyes open. Contact lenses, if they exist and can be done easily, remove them. In case of eye irritation, seek medical attention.

Ingestion: If the person feels unwell, call a POISON CENTER or doctor. Do not induce vomiting.

Protection of the first aider: No information available.

4.2 Most important symptoms and effects, both acute and delayed

Eyes: redness, pain, blurred vision
Skin: redness, pain, burns, blisters
Ingestion: May be harmful if swallowed. If the substance enters the lungs, signs and symptoms may include coughing, choking, wheezing, difficulty breathing, chest tightness, shortness of breath, and/or fever.
Inhalation: Harmful by inhalation.

4.3 Indication of any immediate medical attention and special treatment needed

Treat according to symptoms. Show the safety data sheet or product label to the medical staff.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Carbon dioxide (CO2), water spray, alcohol-resistant foam, dry powder.

Unsuitable extinguishing media: Full water jet

5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released: carbon dioxide (CO2); Carbon monoxide (CO), Flammable gases/vapours. Not flammable There is no risk of explosion. Combustion products: Carbon monoxide (CO), carbon dioxide (CO2).

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5.3 Advice for firefighters	In case of fire: Wear self-contained breathing apparatus and protective clothing.
Additional information:	No information available.

SECTION 6: Accidental release measures

6.1 Personal safety measures, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:	Wear protective clothing. See section 8 for more information. Notify emergency personnel. Restrict access to the endangered area until the consequences of the accident are eliminated. Eliminate potential sources of ignition. Remove spilled product. Provide adequate ventilation. Notify local authorities in accordance with applicable regulations. Avoid contact with skin, eyes and clothes. Prevent the product from entering surface water, drains, groundwater or waterways.
6.1.2 For emergency responders:	No information available.
6.2 Environmental precautions	Do not allow to enter into surface water or drains.
6.3 Methods and materials for containment and cleaning up	
6.3.1 Spill Containment:	Stop leaks and runoff into the environment. Remove sources of ignition (open flame, sparks...).
6.3.2 Spill clean-up:	Collect the spilled product mechanically with an adsorption material (sawdust, sand, earth) and remove it to a marked container for further disposal in accordance with the applicable waste management regulations. Comply with applicable laws and regulations.
6.3.3 Other information:	No information available.
6.4 References to other sections	Personal protective equipment: see section 8. Incompatible materials: see section 10. For disposal see section 13.
Additional information:	No information available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations for preventing fire, the formation of aerosols and dust, and for protecting the environment:	Do not breathe vapor or mist. Wear personal protective equipment. Ensure effective ventilation. Avoid contact with eyes, skin and clothing. Store in original packaging.
Advice on general occupational hygiene:	Do not eat, drink or smoke while working, wash your hands with soap after working with the product.
7.2 Conditions for safe storage, including any incompatibilities	
Technical measures and storage conditions:	Store in original packaging. Keep containers tightly closed in a dry, cool and well-ventilated area. Prevent air/oxygen entry (peroxide formation). Keep away from heat sources, ignition sources. Store away from direct sunlight.
Packaging materials:	No information available.
Requirements for storage areas and containers:	No information available.
Storage class:	No information available.
7.3 Specific end use(s)	According to the technical information.
Recommendations:	No information available.
Specific uses for industry:	No information available.
Additional information:	No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.1.1 Occupational exposure limit:

Substance	CAS No.	Country	Limit values 8h		Limit value - Short term		Remarks
			mg/m3	ppm	mg/m3	ppm	
Propan-2-ol	67-63-0	Austria	200	500	800	2000	/
Propan-2-ol	67-63-0	Belgium	200	500	400 (1)	1000 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Denmark	200	490	400	980	/
Propan-2-ol	67-63-0	Finland	200	500	250 (1)	620 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	France	/	/	400	980	/
Propan-2-ol	67-63-0	Germany (AGS)	200	500	400 (1)	1000 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Germany (DFG)	1000 (1)	200	500	400 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Hungary	/	500 (1)	/	1000 (1)(2)	(1) Skin (2) 15 minutes average value
Propan-2-ol	67-63-0	Ireland	200	/	/	400 (1)	(1) 15 minutes reference period
Propan-2-ol	67-63-0	Latvia	350	/	/	600 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Norway	100	245	/	/	/
Propan-2-ol	67-63-0	Poland	/	900 (1)	/	1200 (1)(2)	(1) Skin (2) 15 minutes average value
Propan-2-ol	67-63-0	Romania	81	200	203 (1)	500 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Spain	200	500	400	1000	/
Propan-2-ol	67-63-0	Sweden	150	350	250 (1)	600 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Switzerland	200	500	400	1000	/
Propan-2-ol	67-63-0	United Kingdom	400	999	500 (1)	1250 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	Austria	20	98	40	200	/
2-Butoxyethanol	111-76-2	Belgium	20	98	50 (1)	246 (1)	Additional indication "D" means that the absorption of the agent through the skin, mucous membranes or eyes is an important part of the total exposure. It can be the result of both direct contact and its presence in the air. (1) 15 minutes average value
2-Butoxyethanol	111-76-2	Denmark	20 (1)	98 (1)	40 (1)(2)	196 (1)(2)	1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	European Union	**20**	**98**	**50 (1)**	**246 (1)**	(1) 15 minutes average value Bold-type: Indicative Occupational Exposure Limit Value (IOELV)
2-Butoxyethanol	111-76-2	Finland	20	98	50 (1)	250 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	France	**10**	**49**	**50 (1)**	**246 (1)**	Bold type: Restrictive statutory limit values Skin (1) 15 minutes average value
2-Butoxyethanol	111-76-2	Germany (AGS)	10 (1)	49 (1)	20 (1)(2)	98 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Germany (DFG)	10 (1)(2)	49 (2)	20 (1)(2)(3)	98 (2)(3)	(1) MAK value applies for the sum of the concentrations of 2-Butoxyethanol and 2-Butoxyethylacetate in air (2) Skin (3) 15 minutes average value
2-Butoxyethanol	111-76-2	Hungary	/	98 (1)	/	246 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Ireland	20	98	50 (1)	246 (1)	(1) 15 minutes reference period
2-Butoxyethanol	111-76-2	Italy	20 (1)	98 (1)	50 (1)(2)	246 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Latvia	20	98	50 (1)	246 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	Norway	10 (1)	50 (1)			(1) Skin
2-Butoxyethanol	111-76-2	Poland	/	98 (1)	/	200 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Romania	20	98	50 (1)	246 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	Spain	20 (1)	98 (1)	50 (1)(2)	245 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Sweden	10	50	50 (1)	246 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	10	49	20	98	10	/
2-Butoxyethanol	111-76-2	The Netherlands	20,4 (1)	100 (1)	50 (1)(2)	246 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	United Kingdom	25 (1)	123 (1)	50 (1)(2)	246 (1)(2)	(1) Skin (2) 15 minutes average value

8.1.2 Biological limit values:

Substance	CAS No.	Parameter	Biological limits values (BAT)	Biological sample	Sampling time
/	/	/	/	/	/

8.1.3 DNEL/PNEC:

disodium metasilicate 6834-92-0 DNEL 8,22 [mg/m³] inhalation systemic
propan-2-ol 67-63-0 DNEL 500 [mg/m³] inhalation systemic

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2-butoxyethanol 111-76-2 98 [mg/m³] inhalation systemic
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts 61789-40-0
DNEL 8,22 [mg/m³] inhalation systemic

DNEL - tetrasodium ethylenediaminetetraacetate

End Users/Exposure	Value	Method of exposure
Workers / Long-term systemic and local effects	1.5 mg/m3	Inhalation
Workers / Short-term systemic and local effects	3 mg/m3	Inhalation
Users/ Long-term systemic and local effects	0.6 mg/m3	Inhalation
Users/ Short-term systemic and local effects	1.2 mg/m3	Inhalation

PNEC - tetrasodium ethylenediaminetetraacetate

Environment	Value
Freshwater	2.2 mg/l (rating factor – 10)
Marine water	0.22 mg/l (rating factor – 100)
Biological treatment plant	43 mg/l
Single release	1.2 mg/l

DNEL - 2-Butoxyethanol

End Users/Exposure	Value	Method of exposure
Workers / Long-term systemic effects	98 mg/m3	Inhalation
Workers / Acute systemic effects	1091 mg/m3	Inhalation
Workers / Acute local effects	246 mg/m3	Inhalation
Workers / Long-term systemic effects	125 mg/kg body weight/day	Through the skin
Workers / Acute systemic effects	89 mg/kg body weight/day	Through the skin
Users / Long-term systemic effects	59 mg/m3	Inhalation
Users / Acute systemic effects	426 mg/m3	Inhalation
Users / Long-term systemic effects	89 mg/kg body weight/day	Through the skin
Users / Acute systemic effects	89 mg/kg body weight/day	Through the skin
Users / Long-term systemic effects	6.3 mg/kg body weight/day	Ingestion
Users / Acute systemic effects	7,5 mg/kg body weight/day	Ingestion

PNEC - 2-butoxyethanol

Environment	Value
Freshwater	8.8 mg/l (rating factor – 10)
Marine water	0.22 mg/l (rating factor – 100)
Biological treatment plant	463 mg/l
Single release	34.6 mg/l
Marine sediment	3.46 mg/l
Ground	2.33 mg/kg dry material

8.2 Exposure controls

8.2.1 Appropriate engineering controls: No information available.

8.2.2 Individual protection measures, such as personal protective equipment:

Personal protective equipment must comply with EN standards: respirator EN 136, 140, 149; safety glasses EN 166; protective clothing: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, protective shoes EN-ISO 20345.

- General: General instructions for personal protection:
  Avoid contact with skin, eyes and clothes. Remove contaminated clothing and launder before reuse. Make sure eyewash stations and safety showers are close to where the product is to be used.
- Eye/face protection: Protective goggles.
- Skin protection: Protective work clothes.

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• Hand protection	Glove material: nitrile rubber Break-through time: > 480 min Glove thickness: 0.4 mm Camatril® 730. Gloves should be inspected before use. Change gloves regularly. Note: Specifications are based on information and tests of similar substances by analogy. Due to different conditions (e.g., temperature or other loads), it should be taken into account that the use of a chemical protective glove in practice can be much shorter than the breakthrough time determined in accordance with EN 374. Because the actual conditions of practical use often deviate from the standardized conditions according to EN 374, the glove manufacturer recommends the use of gloves to protect against chemicals in practice no more than 50% of the recommended breakthrough time. Due to the wide range of types of gloves, it is necessary to follow the manufacturer's instructions for use.
• Respiratory protection	If vapors are generated, use a respirator with an approved filter.
• Thermal hazards	No information available.
8.2.3 Environmental exposure controls:	Handle in accordance with local environmental regulations and good industrial practice.
Additional information:	No information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	**Value/Unit/Method**
Physical state	Liquid
Colour	Light yellow
Odour	Mild
Odor threshold limit value	No information available.
Melting point/freezing point	No information available.
Boiling point or initial boiling point and boiling range	No information available.
Flammability	No information available.
Lower/upper explosive limit	No information available.
Flash point	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
pH	>11 (20 °C)
Kinematic viscosity	No information available.
Solubility	No information available.
Partition coefficient n-octanol/water (log value)	No information available.
Vapor pressure	No information available.
Density and/or relative density	1.10 g/cm³ at 20 °C
Relative density	No information available.
Relative vapor density	No information available.
Particle characteristics	No information available.
Oxidizing properties	The product is not oxidizing
9.2 Other information:	
9.2.1 Information with regard to physical hazard classes	No information available.
9.2.2 Other safety characteristics	No information available.
Additional information:	No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity	There is no risk of reactivity under normal storage and handling conditions.
10.2 Chemical stability	Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions	There are no known specific conditions that should be avoided.
10.4 Conditions to avoid	There are no known specific conditions that should be avoided.
10.5 Incompatible Materials	No information available.
10.6 Hazardous decomposition products	Under the prescribed conditions of storage and handling, the product does not decompose.
Additional information:	No information available.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 (CLP)

Acute toxicity: The mixture is not classified.

Ingredients that may contribute to acute oral toxicity:
2-butoxyethanol, LD 50 (oral): ATE 500 mg/kg
tetrasodium ethylenediaminetetraacetate, LD 50 (oral): ATE 500 mg/kg
Alcohols, C9-11-iso-, C10-rich, ethoxylated, LD 50 (oral): ATE 500 mg/kg
Calculated estimated value for acute oral toxicity ATE (mixtures): 1515 mg/kg
The mixture is therefore classified in category 4 Acute toxicity (oral).

Ingredients that may contribute to acute dermal toxicity:
There are no suitable ingredients in the mixture. The mixture is not classified according to acute toxicity (dermal).

Ingredients that may contribute to acute inhalation toxicity:
2-butoxyethanol, LC 50 (inhalation): ATE 3 mg/l/4h
Calculated estimated value for acute inhalation toxicity ATE (mixture): 37 mg/l/4h
The mixture is therefore not classified as acutely toxic (inhalation).

Skin corrosion/irritation: Result: the mixture is classified as category 1.

Serious eye damage/irritation: Substances classified as corrosive substances of category 1B also cause severe eye damage. Result: the mixture is classified as category 1.

Respiratory or skin sensitisation: The mixture is not classified.

Germ cell mutagenicity: The mixture is not classified.

Carcinogenicity: The mixture is not classified.

Reproductive toxicity: The mixture is not classified.

STOT – single exposure: The mixture is not classified.

Components that may contribute to specific target organ toxicity - single exposure:
Respiratory tract irritation:
Important substances:
disodium metasilicate, Substance Classification: Category 3
The mixture is not classified as specific target organ toxicity - single exposure: respiratory tract irritation.

Components that may contribute to specific target organ toxicity - single exposure:
Narcotic effects:

Important substances:

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	propan-2-ol, Substance classification: Category 3 The mixture is not classified in Specific target organ toxicity - single exposure: Narcotic effects.
STOT - repeated exposure:	The mixture is not classified.
Aspiration hazard:	The mixture is not classified.
Information on likely routes of exposure:	No information available.
Symptoms related to the physical, Chemical and toxicological characteristics:	No information available.
Delayed and immediate effects as Well as chronic effects from short and long-term exposure:	No information available.
Interactive effects	No information available.
Absence of specific data:	No information available.
Mixture versus substance information:	No information available.

11.2 Information on other hazards

Endocrine disruptor properties:	No information available.
Other information:	No information available.

SECTION 12: Ecological information

12.1 Toxicity

The ecotoxicological assessment is based on data on the toxicity of the ingredients that make up the product.

tetrasodium ethylenediaminetetraacetate

Result	Species	Exposure / method
Acute LC50 > 100 mg/l	Fish – *Lepomis macrochirus*	96h / OPP 72-1 (EPA Directive)
Chronic NOEC >= 36.9 mg/l	Fish – *Brachydania rerio*	35d / OECD Test Guideline 210
Acute EC50 > 100 mg/l	Water plants – Scenedesmus obliquus	72h /88/302/EWG
Acute EC50 > 100 mg/l	Aquatic Invertebrates – Daphnia magna	48h / DIN 38412
Chronic NOEC 25 mg/l	Aquatic Invertebrates – Daphnia magna	21d / OECD Test Guideline 211
Acute EC20 > 500 mg/l	Microorganisms – activated sludge	30 min/ OECD Test Guideline 209
Chronic NOEC 84 mg/kg	Terrestrial plants	21d

2-propanol

Result	Species	Exposure / method
Acute EC50 10100 mg/l, fresh water	Aquatic invertebrates – Daphnia magna	48h
Acute LC50 1400000 µg/l, sea water	Aquatic invertebrates - Crangon crangon	48h
Acute LC50 4200 mg/l, fresh water	Fish – Rasbora heteromorpha	96h

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butoxyethanol

Result	Species	Exposure / method
Acute LC50 1474 mg/l	Fish – *Oncorhynchus mykiss*	96h / OECD Test Guideline 203
Chronic NOEC > 100 mg/l	Fish – *Danio rerio*	21d / OECD Test Guideline 204
Acute EC50 911 mg/l	Water plants - *Pseudokirchneriella subcapitata*	72h / OECD Test Guideline 201
Acute EC50 1800 mg/l	Aquatic invertebrates – Daphnia magna	48h / OECD Test Guideline 202
Chronic NOEC > 100 mg/l	Aquatic invertebrates – Daphnia magna	21d / OECD Test Guideline 211

12.2 Persistence and degradability

The surfactants found in this detergent meet the criterion of complete aerobic biodegradability given in accordance with Regulation 648/2004/EC.

Biodegradability of the component included in the composition of the product:
2-butoksietanol, CAS: 111-76-2
Biodegradation: 90.4%
Exposure time: 28 days
Result: Easily biodegradable.
Method: OECD Test Guideline 301B

12.3 Bioaccumulative potential

Bioaccumulative potential of the component included in the composition of the product:
2-propanol, CAS: 67-63-0
LogPow 0.05 - low bioaccumulation potential

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

Does not meet the criteria for identification as PBT and vPvB.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment of mixture:

When removing - do not mix with municipal waste. You must hand over the used product, waste or unused parts of the product to an authorized person who collects and handles waste in accordance with national regulations and legislation on waste.

The owner or other owner of the waste, or the authorized operator, is obliged to classify the waste in the prescribed manner, carry out testing of hazardous waste and waste that may be dangerous due to its origin, composition and properties.

It is forbidden to mix it with other types of waste that pose a greater risk to the environment.

EWC code: No information available.

Waste treatment of packaging: No information available.

EWC code: 15 01 10* Packaging containing residues of dangerous substances or contaminated with dangerous substances

Additional information: No information available.

SECTION 14: Transport information

14.1 UN number and ID number: 1760

14.2 UN proper shipping name: ADR/RID - CORROSIVE LIQUID IMDG - CORROSIVE LIQUID
14.3 Transport hazard class(es):
ADR/RID 8
IMDG 8
IATA 8
14.4 Packing group:
ADR/RID III
IMDG III
IATA III
14.5 Environmental hazards: According to traffic regulations, it is not classified as dangerous.
14.6 Special precautions for user: No
14.7 Maritime transport in bulk according to IMO instruments: Not transported in bulk.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 on registration, evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency and amending the Directive 1999/45 / EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 and Council Directives 76/769 / EEC and Commission Directives 91/155 / EEC, 93/67 / EEC, 93/105 / EC and 2000/21 / EC (as amended by Commission Regulation (EU) No. 830/2015) - with amendments
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548 / EEC and 1999/45 / EC and amending Regulation (EC) No 1234/2007.

15.2 Chemical safety assessment
No information available.

SECTION 16: Other information

Changes to the safety data sheet: No information available.

Abbreviations:
CLP - Classification, Labelling and Packaging
DNEL – Derived No-Effect Level
EWC code - six-digit code used to identify waste as listed in the European Waste Catalogue
PNEC - Predicted concentration without effect
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals
STOT – Specific Target Organ Toxicity
UFI - the 16-character unique formula identifier (UFI) code

Resources for creating a safety data sheet: AS-CARB - SI (Revision date: 10.10.2023)

List of relevant hazard statements and/or precautionary statements under sections 2 to 15:
H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.

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H400 Very toxic to aquatic life.

Training for workers: No information available.

Recommended usage restrictions: No information available.

The information in the safety data sheet is based on our knowledge and available information. The safety data sheet indicates the product and the safety measures prescribed for it. The safety data sheet does not guarantee the quality of the product. A legal or natural person who places a chemical on the market is not responsible for any improper use, only this and the resulting consequences.

- End of safety data sheet -

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Trade name: AS-GEN
Product code: No information available.
UFI: G7PK-T7NG-6009-GRFH

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Identified uses: Concentrated agent for degreasing internal combustion engine parts with ultrasonic cleaning - washing in ultrasonic baths and bathrooms.
Uses advised against: Do not use for purposes other than those recommended.

1.3 Details of the supplier of the safety data sheet:

Manufacturer:
ASONIC d.o.o.
Tržaška cesta 134
1000 Ljubljana, Slovenia
Phone: + 386 41 566618
e-mail: order@asonic.si

1.4 Emergency telephone number:

Belgium: 070 245 245
Bulgaria: +359 2 9154 233
Croatia: +3851 2348 342 (24/7 in Croatian and English).
Czech Republic: +420 224 919 293, +420 224 915 402
Denmark: +45 8212 1212
Estonia: 112 (National emergency telephone number (Häirekeskuse number)); 16662 (nationally) and +372) 7943 794 (calling from abroad)
Finland: 0800 147 111, 09 471 977 (Open 24 hours a day)
France: + 33 (0)1 45 42 59 59
Greece: (0030) 2107793777
Hungary: +36-80-201-199 (0-24h, free of charge)
Ireland: 01 809 2566
Italy (CAP, Phone Number, City): 00165 06 68593726 (Roma); 71122 800183459 (Foggia); 80131 081-5453333 (Napoli); 161 06-49978000 (Roma); 168 06-3054343 (Roma); 50134 055-7947819 (Firenze); 27100 0382-24444 (Pavia); 20162 02-66101029 (Milano); 24127 800883300 (Bergamo); 37126 800011858 (Verona).
Latvia: Valsts ugunsdzēsības un glābšanas dienests, phone number: 112. Toksikoloģijas un sepses klīnikas Saindēšanās un zāļu informācijas centrs, Hipokrāta 2, Rīga, Latvija, LV-1038, phone number +371 67042473. Service is available 24 hours.
Lithuania: +370 (85) 2362052
Luxembourg: (+352) 8002 5500 (24/7, experts answer in French, Dutch and English)
The Netherlands: +31 (0)88 755 8000
Norway: 22 59 13 00 (Open 24 hours a day, 7 days a week.)
Portugal: +351 800 250 250
Romania: +40213183606
Slovakia: +421 2 5477 4166
Slovenia: 112
Spain: + 34 91 562 04 20 (available 24h/365 days)
Sweden: 112

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture:

2.1.1 Classification according to Regulation (EC) No 1272/2008 (CLP)

Flam. Liq. 2, H225 (Flammable liquids, Category 2, H225)
Acute Tox. 4, H302 (Acute toxicity (oral), Category 4, H302)
Skin Corr. 1B, H314 (Skin corrosion/irritation, Category 1B, H314)
Eye Dam. 1, H318 (Serious eye damage/Eye irritation, Category 1, H318)

2.2 Label elements:

2.2.1 Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word(s): Danger

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Hazard pictogram(s):

Hazard statement(s):
H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.

Precautionary statement(s):
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P235 Keep cool.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilation/lighting/... equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor/... if you feel unwell.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor/...
P321 Specific treatment (see on this label).
P330 Rinse mouth.
P363 Wash contaminated clothing before reuse.
P370 + P378 In case of fire: Use carbon dioxide (CO2), water spray, alcohol-resistant foam, dry powder to extinguish.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/container to according to regulations.

Contains:
propan-2-ol; tetrasodium ethylene diamine tetraacetate; 2-butoxyethanol; Alcohols, C9-11-iso-, C10-rich, ethoxylated; disodium metasilicate

2.3 Other hazards:
No information available.

SECTION 3: Composition/information on ingredients

3.1 Mixture

Description of the substance/mixture: No information available.

Substance	EC No.	CAS No.	Index No.	CLP-classification	Concentration % (w/w)	REACH Reg. No.
tetrasodium ethylene diamine tetraacetate	200-573-9	64-02-8	607-428-00-2	Acute Tox. 4, H302 Eye Dam. 1, H318	5 - < 10	/
disodium metasilicate	229-912-9	6834-92-0	014-010-00-8	Skin Corr. 1B, H314 STOT SE 3, H335	5 - 15	/
propan-2-ol	200-661-7	67-63-0	603-117-00-0	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	5 - 15	/
2-butoxyethanol	203-905-0	111-76-2	603-014-00-0	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Acute Tox. 3, H331	2 - 8	/
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	263-058-8	61789-40-0	/	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Acute 1, H400	3 - 8	/
Alcohols, C9-11-iso-, C10-rich, ethoxylated	616-607-4	78330-20-8	/	Acute Tox. 4, H302 Eye Dam. 1, H318	5 - 15	/

More information: Please see section 16 for the full text of H- / EUH-phrases.

SECTION 4: First aid measures

4.1 Description of first aid measures

General: No information available.

Inhalation: In case of inhalation of product/vapours, remove exposed person to fresh air. If coughing and/or other breathing problems occur - seek medical help immediately.

Skin contact**:** Wash skin with soap and water. If clothes and shoes are dirty, they should be taken off. Seek medical advice if irritation occurs.

Eye contact: If contact occurs, flush eyes with water for at least 15 minutes, keeping eyes open. Contact lenses, if they exist and can be done easily, remove them. In case of eye irritation, seek medical attention.

Ingestion: If the person feels unwell, call a POISON CENTER or doctor. Do not induce vomiting.

Protection of the first aider: No information available.

4.2 Most important symptoms and effects, both acute and delayed

Eyes: redness, pain, blurred vision
Skin: redness, pain, burns, blisters
Ingestion: May be harmful if swallowed. If the substance enters the lungs, signs and symptoms may include coughing, choking, wheezing, difficulty breathing, chest tightness, shortness of breath, and/or fever.
Inhalation: Harmful by inhalation.

4.3 Indication of any immediate medical attention and special treatment needed

Treat according to symptoms. Show the safety data sheet or product label to the medical staff.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Carbon dioxide (CO_2), water spray, alcohol-resistant foam, dry powder.

Unsuitable extinguishing media: Full water jet

5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released: carbon dioxide (CO_2); Carbon monoxide (CO), Flammable gases/vapours. Not flammable There is no risk of explosion. Combustion products: Carbon monoxide (CO), carbon dioxide (CO_2).

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5.3 Advice for firefighters	In case of fire: Wear self-contained breathing apparatus and protective clothing.
Additional information:	No information available.

SECTION 6: Accidental release measures

6.1 Personal safety measures, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:	Wear protective clothing. See section 8 for more information. Notify emergency personnel. Restrict access to the endangered area until the consequences of the accident are eliminated. Eliminate potential sources of ignition. Remove spilled product. Provide adequate ventilation. Notify local authorities in accordance with applicable regulations. Avoid contact with skin, eyes and clothes. Prevent the product from entering surface water, drains, groundwater or waterways.
6.1.2 For emergency responders:	No information available.
6.2 Environmental precautions	Do not allow to enter into surface water or drains.
6.3 Methods and materials for containment and cleaning up	
6.3.1 Spill Containment:	Stop leaks and runoff into the environment. Remove sources of ignition (open flame, sparks...).
6.3.2 Spill clean-up:	Collect the spilled product mechanically with an adsorption material (sawdust, sand, earth) and remove it to a marked container for further disposal in accordance with the applicable waste management regulations. Comply with applicable laws and regulations.
6.3.3 Other information:	No information available.
6.4 References to other sections	Personal protective equipment: see section 8. Incompatible materials: see section 10. For disposal see section 13.
Additional information:	No information available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations for preventing fire, the formation of aerosols and dust, and for protecting the environment:	Do not breathe vapor or mist. Wear personal protective equipment. Ensure effective ventilation. Avoid contact with eyes, skin and clothing. Store in original packaging.
Advice on general occupational hygiene:	Do not eat, drink or smoke while working, wash your hands with soap after working with the product.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:	Store in original packaging. Keep containers tightly closed in a dry, cool and well-ventilated area. Prevent air/oxygen entry (peroxide formation). Keep away from heat sources, ignition sources. Store away from direct sunlight.
Packaging materials:	No information available.
Requirements for storage areas and containers:	No information available.
Storage class:	No information available.
7.3 Specific end use(s)	According to the technical information.
Recommendations:	No information available.
Specific uses for industry:	No information available.
Additional information:	No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.1.1 Occupational exposure limit:

Substance	CAS No.	Country	Limit values 8h		Limit value - Short term		Remarks
			mg/m3	ppm	mg/m3	ppm	
Propan-2-ol	67-63-0	Austria	200	500	800	2000	/
Propan-2-ol	67-63-0	Belgium	200	500	400 (1)	1000 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Denmark	200	490	400	980	/
Propan-2-ol	67-63-0	Finland	200	500	250 (1)	620 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	France	/	/	400	980	/
Propan-2-ol	67-63-0	Germany (AGS)	200	500	400 (1)	1000 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Germany (DFG)	1000 (1)	200	500	400 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Hungary	/	500 (1)	/	1000 (1)(2)	(1) Skin (2) 15 minutes average value
Propan-2-ol	67-63-0	Ireland	200	/	/	400 (1)	(1) 15 minutes reference period
Propan-2-ol	67-63-0	Latvia	350	/	/	600 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Norway	100	245	/	/	/
Propan-2-ol	67-63-0	Poland	/	900 (1)	/	1200 (1)(2)	(1) Skin (2) 15 minutes average value
Propan-2-ol	67-63-0	Romania	81	200	203 (1)	500 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Spain	200	500	400	1000	/
Propan-2-ol	67-63-0	Sweden	150	350	250 (1)	600 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Switzerland	200	500	400	1000	/
Propan-2-ol	67-63-0	United Kingdom	400	999	500 (1)	1250 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	Austria	20	98	40	200	/
2-Butoxyethanol	111-76-2	Belgium	20	98	50 (1)	246 (1)	Additional indication "D" means that the absorption of the agent through the skin, mucous membranes or eyes is an important part of the total exposure. It can be the result of both direct contact and its presence in the air. (1) 15 minutes average value
2-Butoxyethanol	111-76-2	Denmark	20 (1)	98 (1)	40 (1)(2)	196 (1)(2)	1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	European Union	**20**	**98**	**50 (1)**	**246 (1)**	(1) 15 minutes average value Bold-type: Indicative Occupational Exposure Limit Value (IOELV)
2-Butoxyethanol	111-76-2	Finland	20	98	50 (1)	250 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	France	**10**	**49**	**50 (1)**	**246 (1)**	Bold type: Restrictive statutory limit values Skin (1) 15 minutes average value
2-Butoxyethanol	111-76-2	Germany (AGS)	10 (1)	49 (1)	20 (1)(2)	98 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Germany (DFG)	10 (1)(2)	49 (2)	20 (1)(2)(3)	98 (2)(3)	(1) MAK value applies for the sum of the concentrations of 2-Butoxyethanol and 2-Butoxyethylacetate in air (2) Skin (3) 15 minutes average value
2-Butoxyethanol	111-76-2	Hungary	/	98 (1)	/	246 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Ireland	20	98	50 (1)	246 (1)	(1) 15 minutes reference period
2-Butoxyethanol	111-76-2	Italy	20 (1)	98 (1)	50 (1)(2)	246 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Latvia	20	98	50 (1)	246 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	Norway	10 (1)	50 (1)			(1) Skin
2-Butoxyethanol	111-76-2	Poland	/	98 (1)	/	200 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Romania	20	98	50 (1)	246 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	Spain	20 (1)	98 (1)	50 (1)(2)	245 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Sweden	10	50	50 (1)	246 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	10	49	20	98	10	/
2-Butoxyethanol	111-76-2	The Netherlands	20,4 (1)	100 (1)	50 (1)(2)	246 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	United Kingdom	25 (1)	123 (1)	50 (1)(2)	246 (1)(2)	(1) Skin (2) 15 minutes average value

8.1.2 Biological limit values:

Substance	CAS No.	Parameter	Biological limits values (BAT)	Biological sample	Sampling time
/	/	/	/	/	/

8.1.3 DNEL/PNEC:

disodium metasilicate 6834-92-0 DNEL 8,22 [mg/m³] inhalation systemic
propan-2-ol 67-63-0 DNEL 500 [mg/m³] inhalation systemic

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2-butoxyethanol 111-76-2 98 [mg/m³] inhalation systemic
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts 61789-40-0 DNEL 8,22 [mg/m³] inhalation systemic

DNEL - tetrasodium ethylenediaminetetraacetate

End Users/Exposure	Value	Method of exposure
Workers / Long-term systemic and local effects	1.5 mg/m3	Inhalation
Workers / Short-term systemic and local effects	3 mg/m3	Inhalation
Users/ Long-term systemic and local effects	0.6 mg/m3	Inhalation
Users/ Short-term systemic and local effects	1.2 mg/m3	Inhalation

PNEC - tetrasodium ethylenediaminetetraacetate

Environment	Value
Freshwater	2.2 mg/l (rating factor – 10)
Marine water	0.22 mg/l (rating factor – 100)
Biological treatment plant	43 mg/l
Single release	1.2 mg/l

DNEL - 2-Butoxyethanol

End Users/Exposure	Value	Method of exposure
Workers / Long-term systemic effects	98 mg/m3	Inhalation
Workers / Acute systemic effects	1091 mg/m3	Inhalation
Workers / Acute local effects	246 mg/m3	Inhalation
Workers / Long-term systemic effects	125 mg/kg body weight/day	Through the skin
Workers / Acute systemic effects	89 mg/kg body weight/day	Through the skin
Users / Long-term systemic effects	59 mg/m3	Inhalation
Users / Acute systemic effects	426 mg/m3	Inhalation
Users / Long-term systemic effects	89 mg/kg body weight/day	Through the skin
Users / Acute systemic effects	89 mg/kg body weight/day	Through the skin
Users / Long-term systemic effects	6.3 mg/kg body weight/day	Ingestion
Users / Acute systemic effects	7,5 mg/kg body weight/day	Ingestion

PNEC - 2-butoxyethanol

Environment	Value
Freshwater	8.8 mg/l (rating factor – 10)
Marine water	0.22 mg/l (rating factor – 100)
Biological treatment plant	463 mg/l
Single release	34.6 mg/l
Marine sediment	3.46 mg/l
Ground	2.33 mg/kg dry material

8.2 Exposure controls

8.2.1 Appropriate engineering controls: No information available.

8.2.2 Individual protection measures, such as personal protective equipment:

Personal protective equipment must comply with EN standards: respirator EN 136, 140, 149; safety glasses EN 166; protective clothing: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, protective shoes EN-ISO 20345.

- General: General instructions for personal protection:
  Avoid contact with skin, eyes and clothes. Remove contaminated clothing and launder before reuse. Make sure eyewash stations and safety showers are close to where the product is to be used.
- Eye/face protection: Protective goggles.
- Skin protection: Protective work clothes.

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• Hand protection	Glove material: nitrile rubber Break-through time: > 480 min Glove thickness: 0.4 mm Camatril® 730. Gloves should be inspected before use. Change gloves regularly. Note: Specifications are based on information and tests of similar substances by analogy. Due to different conditions (e.g., temperature or other loads), it should be taken into account that the use of a chemical protective glove in practice can be much shorter than the breakthrough time determined in accordance with EN 374. Because the actual conditions of practical use often deviate from the standardized conditions according to EN 374, the glove manufacturer recommends the use of gloves to protect against chemicals in practice no more than 50% of the recommended breakthrough time. Due to the wide range of types of gloves, it is necessary to follow the manufacturer's instructions for use.
• Respiratory protection	If vapors are generated, use a respirator with an approved filter.
• Thermal hazards	No information available.
8.2.3 Environmental exposure controls:	Handle in accordance with local environmental regulations and good industrial practice.
Additional information:	No information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	**Value/Unit/Method**
Physical state	Liquid
Colour	Light yellow
Odour	Mild
Odor threshold limit value	No information available.
Melting point/freezing point	No information available.
Boiling point or initial boiling point and boiling range	No information available.
Flammability	No information available.
Lower/upper explosive limit	No information available.
Flash point	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
pH	>11 (20 °C)
Kinematic viscosity	No information available.
Solubility	No information available.
Partition coefficient n-octanol/water (log value)	No information available.
Vapor pressure	No information available.
Density and/or relative density	1.10 g/cm³ at 20 °C
Relative density	No information available.
Relative vapor density	No information available.
Particle characteristics	No information available.
Oxidizing properties	The product is not oxidizing
9.2 Other information:	
9.2.1 Information with regard to physical hazard classes	No information available.
9.2.2 Other safety characteristics	No information available.
Additional information:	No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity	There is no risk of reactivity under normal storage and handling conditions.
10.2 Chemical stability	Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions	There are no known specific conditions that should be avoided.
10.4 Conditions to avoid	There are no known specific conditions that should be avoided.
10.5 Incompatible Materials	No information available.
10.6 Hazardous decomposition products	Under the prescribed conditions of storage and handling, the product does not decompose.
Additional information:	No information available.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 (CLP)

Acute toxicity: The mixture is not classified.

Ingredients that may contribute to acute oral toxicity:
2-butoxyethanol, LD 50 (oral): ATE 500 mg/kg
tetrasodium ethylenediaminetetraacetate, LD 50 (oral): ATE 500 mg/kg
Alcohols, C9-11-iso-, C10-rich, ethoxylated, LD 50 (oral): ATE 500 mg/kg
Calculated estimated value for acute oral toxicity ATE (mixtures): 1515 mg/kg
The mixture is therefore classified in category 4 Acute toxicity (oral).

Ingredients that may contribute to acute dermal toxicity:
There are no suitable ingredients in the mixture. The mixture is not classified according to acute toxicity (dermal).

Ingredients that may contribute to acute inhalation toxicity:
2-butoxyethanol, LC 50 (inhalation): ATE 3 mg/l/4h
Calculated estimated value for acute inhalation toxicity ATE (mixture): 37 mg/l/4h
The mixture is therefore not classified as acutely toxic (inhalation).

Skin corrosion/irritation: Result: the mixture is classified as category 1.

Serious eye damage/irritation: Substances classified as corrosive substances of category 1B also cause severe eye damage. Result: the mixture is classified as category 1.

Respiratory or skin sensitisation: The mixture is not classified.

Germ cell mutagenicity: The mixture is not classified.

Carcinogenicity: The mixture is not classified.

Reproductive toxicity: The mixture is not classified.

STOT – single exposure: The mixture is not classified.

Components that may contribute to specific target organ toxicity - single exposure:
Respiratory tract irritation:
Important substances:
disodium metasilicate, Substance Classification: Category 3
The mixture is not classified as specific target organ toxicity - single exposure: respiratory tract irritation.

Components that may contribute to specific target organ toxicity - single exposure:
Narcotic effects:

Important substances:

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	propan-2-ol, Substance classification: Category 3 The mixture is not classified in Specific target organ toxicity - single exposure: Narcotic effects.
STOT - repeated exposure:	The mixture is not classified.
Aspiration hazard:	The mixture is not classified.
Information on likely routes of exposure:	No information available.
Symptoms related to the physical, Chemical and toxicological characteristics:	No information available.
Delayed and immediate effects as Well as chronic effects from short and long-term exposure:	No information available.
Interactive effects	No information available.
Absence of specific data:	No information available.
Mixture versus substance information:	No information available.

11.2 Information on other hazards

Endocrine disruptor properties:	No information available.
Other information:	No information available.

SECTION 12: Ecological information

12.1 Toxicity

The ecotoxicological assessment is based on data on the toxicity of the ingredients that make up the product.

tetrasodium ethylenediaminetetraacetate

Result	Species	Exposure / method
Acute LC50 > 100 mg/l	Fish – *Lepomis macrochirus*	96h / OPP 72-1 (EPA Directive)
Chronic NOEC >= 36.9 mg/l	Fish – *Brachydania rerio*	35d / OECD Test Guideline 210
Acute EC50 > 100 mg/l	Water plants – Scenedesmus obliquus	72h /88/302/EWG
Acute EC50 > 100 mg/l	Aquatic Invertebrates – Daphnia magna	48h / DIN 38412
Chronic NOEC 25 mg/l	Aquatic Invertebrates – Daphnia magna	21d / OECD Test Guideline 211
Acute EC20 > 500 mg/l	Microorganisms – activated sludge	30 min/ OECD Test Guideline 209
Chronic NOEC 84 mg/kg	Terrestrial plants	21d

2-propanol

Result	Species	Exposure / method
Acute EC50 10100 mg/l, fresh water	Aquatic invertebrates – Daphnia magna	48h
Acute LC50 1400000 µg/l, sea water	Aquatic invertebrates - Crangon crangon	48h
Acute LC50 4200 mg/l, fresh water	Fish – Rasbora heteromorpha	96h

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butoxyethanol

Result	Species	Exposure / method
Acute LC50 1474 mg/l	Fish – *Oncorhynchus mykiss*	96h / OECD Test Guideline 203
Chronic NOEC > 100 mg/l	Fish – *Danio rerio*	21d / OECD Test Guideline 204
Acute EC50 911 mg/l	Water plants - *Pseudokirchneriella subcapitata*	72h / OECD Test Guideline 201
Acute EC50 1800 mg/l	Aquatic invertebrates – Daphnia magna	48h / OECD Test Guideline 202
Chronic NOEC > 100 mg/l	Aquatic invertebrates – Daphnia magna	21d / OECD Test Guideline 211

12.2 Persistence and degradability

The surfactants found in this detergent meet the criterion of complete aerobic biodegradability given in accordance with Regulation 648/2004/EC.

Biodegradability of the component included in the composition of the product:
2-butoksietanol, CAS: 111-76-2
Biodegradation: 90.4%
Exposure time: 28 days
Result: Easily biodegradable.
Method: OECD Test Guideline 301B

12.3 Bioaccumulative potential

Bioaccumulative potential of the component included in the composition of the product:
2-propanol, CAS: 67-63-0
LogPow 0.05 - low bioaccumulation potential

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

Does not meet the criteria for identification as PBT and vPvB.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment of mixture:

When removing - do not mix with municipal waste. You must hand over the used product, waste or unused parts of the product to an authorized person who collects and handles waste in accordance with national regulations and legislation on waste.

The owner or other owner of the waste, or the authorized operator, is obliged to classify the waste in the prescribed manner, carry out testing of hazardous waste and waste that may be dangerous due to its origin, composition and properties.

It is forbidden to mix it with other types of waste that pose a greater risk to the environment.

EWC code: No information available.

Waste treatment of packaging: No information available.

EWC code: 15 01 10* Packaging containing residues of dangerous substances or contaminated with dangerous substances

Additional information: No information available.

SECTION 14: Transport information

14.1 UN number and ID number: 1760

14.2 UN proper shipping name: ADR/RID - CORROSIVE LIQUID IMDG - CORROSIVE LIQUID
14.3 Transport hazard class(es):
ADR/RID 8
IMDG 8
IATA 8
14.4 Packing group:
ADR/RID III
IMDG III
IATA III
14.5 Environmental hazards: According to traffic regulations, it is not classified as dangerous.
14.6 Special precautions for user: No
14.7 Maritime transport in bulk according to IMO instruments: Not transported in bulk.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 on registration, evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency and amending the Directive 1999/45 / EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 and Council Directives 76/769 / EEC and Commission Directives 91/155 / EEC, 93/67 / EEC, 93/105 / EC and 2000/21 / EC (as amended by Commission Regulation (EU) No. 830/2015) - with amendments
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548 / EEC and 1999/45 / EC and amending Regulation (EC) No 1234/2007.

15.2 Chemical safety assessment
No information available.

SECTION 16: Other information

Changes to the safety data sheet: No information available.

Abbreviations:
CLP - Classification, Labelling and Packaging
DNEL – Derived No-Effect Level
EWC code - six-digit code used to identify waste as listed in the European Waste Catalogue
PNEC - Predicted concentration without effect
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals
STOT – Specific Target Organ Toxicity
UFI - the 16-character unique formula identifier (UFI) code

Resources for creating a safety data sheet: AS-GEN - SI (Revision date: 10.10.2023)

List of relevant hazard statements and/or precautionary statements under sections 2 to 15:
H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.

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H400 Very toxic to aquatic life.

Training for workers: No information available.

Recommended usage restrictions: No information available.

The information in the safety data sheet is based on our knowledge and available information. The safety data sheet indicates the product and the safety measures prescribed for it. The safety data sheet does not guarantee the quality of the product. A legal or natural person who places a chemical on the market is not responsible for any improper use, only this and the resulting consequences.

- End of safety data sheet -

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Trade name: AS-SENS
Product code: No information available.
UFI: EDPK-U718-T009-TEMN

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Identified uses: Concentrated agent for degreasing internal combustion engine parts with ultrasonic cleaning - washing in ultrasonic baths and bathrooms.
Uses advised against: Do not use for purposes other than those recommended.

1.3 Details of the supplier of the safety data sheet:

Manufacturer:
ASONIC d.o.o.
Tržaška cesta 134
1000 Ljubljana, Slovenia
Phone: + 386 41 566618
e-mail: order@asonic.si

1.4 Emergency telephone number:

Belgium: 070 245 245
Bulgaria: +359 2 9154 233
Croatia: +3851 2348 342 (24/7 in Croatian and English).
Czech Republic: +420 224 919 293, +420 224 915 402
Denmark: +45 8212 1212
Estonia: 112 (National emergency telephone number (Häirekeskuse number)); 16662 (nationally) and +372) 7943 794 (calling from abroad)
Finland: 0800 147 111, 09 471 977 (Open 24 hours a day)
France: + 33 (0)1 45 42 59 59
Greece: (0030) 2107793777
Hungary: +36-80-201-199 (0-24h, free of charge)
Ireland: 01 809 2566
Italy (CAP, Phone Number, City): 00165 06 68593726 (Roma); 71122 800183459 (Foggia); 80131 081-5453333 (Napoli); 161 06-49978000 (Roma); 168 06-3054343 (Roma); 50134 055-7947819 (Firenze); 27100 0382-24444 (Pavia); 20162 02-66101029 (Milano); 24127 800883300 (Bergamo); 37126 800011858 (Verona).
Latvia: Valsts ugunsdzēsības un glābšanas dienests, phone number: 112. Toksikoloģijas un sepses klīnikas Saindēšanās un zāļu informācijas centrs, Hipokrāta 2, Rīga, Latvija, LV-1038, phone number +371 67042473. Service is available 24 hours.
Lithuania: +370 (85) 2362052
Luxembourg: (+352) 8002 5500 (24/7, experts answer in French, Dutch and English)
The Netherlands: +31 (0)88 755 8000
Norway: 22 59 13 00 (Open 24 hours a day, 7 days a week.)
Portugal: +351 800 250 250
Romania: +40213183606
Slovakia: +421 2 5477 4166
Slovenia: 112
Spain: + 34 91 562 04 20 (available 24h/365 days)
Sweden: 112

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture:

2.1.1 Classification according to Regulation (EC) No 1272/2008 (CLP)

Flam. Liq. 2, H225 (Flammable liquids, Category 2, H225)
Acute Tox. 4, H302 (Acute toxicity (oral), Category 4, H302)
Skin Corr. 1B, H314 (Skin corrosion/irritation, Category 1B, H314)
Eye Dam. 1, H318 (Serious eye damage/Eye irritation, Category 1, H318)

2.2 Label elements:

2.2.1 Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word(s): Danger

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Hazard pictogram(s):

Hazard statement(s):
H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.

Precautionary statement(s):
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P235 Keep cool.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilation/lighting/... equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor/... if you feel unwell.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor/...
P321 Specific treatment (see on this label).
P330 Rinse mouth.
P363 Wash contaminated clothing before reuse.
P370 + P378 In case of fire: Use carbon dioxide (CO2), water spray, alcohol-resistant foam, dry powder to extinguish.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/container to according to regulations.

Contains:
propan-2-ol; tetrasodium ethylene diamine tetraacetate; 2-butoxyethanol; Alcohols, C9-11-iso-, C10-rich, ethoxylated; disodium metasilicate

2.3 Other hazards:
No information available.

SECTION 3: Composition/information on ingredients

3.1 Mixture

Description of the substance/mixture: No information available.

Substance	EC No.	CAS No.	Index No.	CLP-classification	Concentration % (w/w)	REACH Reg. No.
tetrasodium ethylene diamine tetraacetate	200-573-9	64-02-8	607-428-00-2	Acute Tox. 4, H302 Eye Dam. 1, H318	5 - < 10	/
disodium metasilicate	229-912-9	6834-92-0	014-010-00-8	Skin Corr. 1B, H314 STOT SE 3, H335	5 - 15	/
propan-2-ol	200-661-7	67-63-0	603-117-00-0	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	5 - 15	/
2-butoxyethanol	203-905-0	111-76-2	603-014-00-0	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Acute Tox. 3, H331	2 - 8	/
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	263-058-8	61789-40-0	/	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Acute 1, H400	3 - 8	/
Alcohols, C9-11-iso-, C10-rich, ethoxylated	616-607-4	78330-20-8	/	Acute Tox. 4, H302 Eye Dam. 1, H318	5 - 15	/

More information: Please see section 16 for the full text of H- / EUH-phrases.

SECTION 4: First aid measures

4.1 Description of first aid measures

General: No information available.
Inhalation: In case of inhalation of product/vapours, remove exposed person to fresh air. If coughing and/or other breathing problems occur - seek medical help immediately.
Skin contact**:** Wash skin with soap and water. If clothes and shoes are dirty, they should be taken off. Seek medical advice if irritation occurs.
Eye contact: If contact occurs, flush eyes with water for at least 15 minutes, keeping eyes open. Contact lenses, if they exist and can be done easily, remove them. In case of eye irritation, seek medical attention.
Ingestion: If the person feels unwell, call a POISON CENTER or doctor. Do not induce vomiting.
Protection of the first aider: No information available.

4.2 Most important symptoms and effects, both acute and delayed

Eyes: redness, pain, blurred vision
Skin: redness, pain, burns, blisters
Ingestion: May be harmful if swallowed. If the substance enters the lungs, signs and symptoms may include coughing, choking, wheezing, difficulty breathing, chest tightness, shortness of breath, and/or fever.
Inhalation: Harmful by inhalation.

4.3 Indication of any immediate medical attention and special treatment needed

Treat according to symptoms. Show the safety data sheet or product label to the medical staff.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Carbon dioxide (CO_2), water spray, alcohol-resistant foam, dry powder.
Unsuitable extinguishing media: Full water jet

5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released: carbon dioxide (CO_2); Carbon monoxide (CO), Flammable gases/vapours. Not flammable There is no risk of explosion. Combustion products: Carbon monoxide (CO), carbon dioxide (CO_2).

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5.3 Advice for firefighters	In case of fire: Wear self-contained breathing apparatus and protective clothing.
Additional information:	No information available.

SECTION 6: Accidental release measures

6.1 Personal safety measures, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:	Wear protective clothing. See section 8 for more information. Notify emergency personnel. Restrict access to the endangered area until the consequences of the accident are eliminated. Eliminate potential sources of ignition. Remove spilled product. Provide adequate ventilation. Notify local authorities in accordance with applicable regulations. Avoid contact with skin, eyes and clothes. Prevent the product from entering surface water, drains, groundwater or waterways.
6.1.2 For emergency responders:	No information available.
6.2 Environmental precautions	Do not allow to enter into surface water or drains.
6.3 Methods and materials for containment and cleaning up	
6.3.1 Spill Containment:	Stop leaks and runoff into the environment. Remove sources of ignition (open flame, sparks...).
6.3.2 Spill clean-up:	Collect the spilled product mechanically with an adsorption material (sawdust, sand, earth) and remove it to a marked container for further disposal in accordance with the applicable waste management regulations. Comply with applicable laws and regulations.
6.3.3 Other information:	No information available.
6.4 References to other sections	Personal protective equipment: see section 8. Incompatible materials: see section 10. For disposal see section 13.
Additional information:	No information available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations for preventing fire, the formation of aerosols and dust, and for protecting the environment:	Do not breathe vapor or mist. Wear personal protective equipment. Ensure effective ventilation. Avoid contact with eyes, skin and clothing. Store in original packaging.
Advice on general occupational hygiene:	Do not eat, drink or smoke while working, wash your hands with soap after working with the product.
7.2 Conditions for safe storage, including any incompatibilities	
Technical measures and storage conditions:	Store in original packaging. Keep containers tightly closed in a dry, cool and well-ventilated area. Prevent air/oxygen entry (peroxide formation). Keep away from heat sources, ignition sources. Store away from direct sunlight.
Packaging materials:	No information available.
Requirements for storage areas and containers:	No information available.
Storage class:	No information available.
7.3 Specific end use(s)	According to the technical information.
Recommendations:	No information available.
Specific uses for industry:	No information available.
Additional information:	No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.1.1 Occupational exposure limit:

Substance	CAS No.	Country	Limit values 8h		Limit value - Short term		Remarks
			mg/m3	ppm	mg/m3	ppm	
Propan-2-ol	67-63-0	Austria	200	500	800	2000	/
Propan-2-ol	67-63-0	Belgium	200	500	400 (1)	1000 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Denmark	200	490	400	980	/
Propan-2-ol	67-63-0	Finland	200	500	250 (1)	620 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	France	/	/	400	980	/
Propan-2-ol	67-63-0	Germany (AGS)	200	500	400 (1)	1000 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Germany (DFG)	1000 (1)	200	500	400 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Hungary	/	500 (1)	/	1000 (1)(2)	(1) Skin (2) 15 minutes average value
Propan-2-ol	67-63-0	Ireland	200	/	/	400 (1)	(1) 15 minutes reference period
Propan-2-ol	67-63-0	Latvia	350	/	/	600 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Norway	100	245	/	/	/
Propan-2-ol	67-63-0	Poland	/	900 (1)	/	1200 (1)(2)	(1) Skin (2) 15 minutes average value
Propan-2-ol	67-63-0	Romania	81	200	203 (1)	500 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Spain	200	500	400	1000	/
Propan-2-ol	67-63-0	Sweden	150	350	250 (1)	600 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Switzerland	200	500	400	1000	/
Propan-2-ol	67-63-0	United Kingdom	400	999	500 (1)	1250 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	Austria	20	98	40	200	/
2-Butoxyethanol	111-76-2	Belgium	20	98	50 (1)	246 (1)	Additional indication "D" means that the absorption of the agent through the skin, mucous membranes or eyes is an important part of the total exposure. It can be the result of both direct contact and its presence in the air. (1) 15 minutes average value
2-Butoxyethanol	111-76-2	Denmark	20 (1)	98 (1)	40 (1)(2)	196 (1)(2)	1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	European Union	**20**	**98**	**50 (1)**	**246 (1)**	(1) 15 minutes average value Bold-type: Indicative Occupational Exposure Limit Value (IOELV)
2-Butoxyethanol	111-76-2	Finland	20	98	50 (1)	250 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	France	**10**	**49**	**50 (1)**	**246 (1)**	Bold type: Restrictive statutory limit values Skin (1) 15 minutes average value
2-Butoxyethanol	111-76-2	Germany (AGS)	10 (1)	49 (1)	20 (1)(2)	98 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Germany (DFG)	10 (1)(2)	49 (2)	20 (1)(2)(3)	98 (2)(3)	(1) MAK value applies for the sum of the concentrations of 2-Butoxyethanol and 2-Butoxyethylacetate in air (2) Skin (3) 15 minutes average value
2-Butoxyethanol	111-76-2	Hungary	/	98 (1)	/	246 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Ireland	20	98	50 (1)	246 (1)	(1) 15 minutes reference period
2-Butoxyethanol	111-76-2	Italy	20 (1)	98 (1)	50 (1)(2)	246 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Latvia	20	98	50 (1)	246 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	Norway	10 (1)	50 (1)			(1) Skin
2-Butoxyethanol	111-76-2	Poland	/	98 (1)	/	200 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Romania	20	98	50 (1)	246 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	Spain	20 (1)	98 (1)	50 (1)(2)	245 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Sweden	10	50	50 (1)	246 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	10	49	20	98	10	/
2-Butoxyethanol	111-76-2	The Netherlands	20,4 (1)	100 (1)	50 (1)(2)	246 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	United Kingdom	25 (1)	123 (1)	50 (1)(2)	246 (1)(2)	(1) Skin (2) 15 minutes average value

8.1.2 Biological limit values:

Substance	CAS No.	Parameter	Biological limits values (BAT)	Biological sample	Sampling time
/	/	/	/	/	/

8.1.3 DNEL/PNEC:

disodium metasilicate 6834-92-0 DNEL 8,22 [mg/m³] inhalation systemic
propan-2-ol 67-63-0 DNEL 500 [mg/m³] inhalation systemic

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2-butoxyethanol 111-76-2 98 [mg/m³] inhalation systemic
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts 61789-40-0
DNEL 8,22 [mg/m³] inhalation systemic

DNEL - tetrasodium ethylenediaminetetraacetate

End Users/Exposure	Value	Method of exposure
Workers / Long-term systemic and local effects	1.5 mg/m3	Inhalation
Workers / Short-term systemic and local effects	3 mg/m3	Inhalation
Users/ Long-term systemic and local effects	0.6 mg/m3	Inhalation
Users/ Short-term systemic and local effects	1.2 mg/m3	Inhalation

PNEC - tetrasodium ethylenediaminetetraacetate

Environment	Value
Freshwater	2.2 mg/l (rating factor – 10)
Marine water	0.22 mg/l (rating factor – 100)
Biological treatment plant	43 mg/l
Single release	1.2 mg/l

DNEL - 2-Butoxyethanol

End Users/Exposure	Value	Method of exposure
Workers / Long-term systemic effects	98 mg/m3	Inhalation
Workers / Acute systemic effects	1091 mg/m3	Inhalation
Workers / Acute local effects	246 mg/m3	Inhalation
Workers / Long-term systemic effects	125 mg/kg body weight/day	Through the skin
Workers / Acute systemic effects	89 mg/kg body weight/day	Through the skin
Users / Long-term systemic effects	59 mg/m3	Inhalation
Users / Acute systemic effects	426 mg/m3	Inhalation
Users / Long-term systemic effects	89 mg/kg body weight/day	Through the skin
Users / Acute systemic effects	89 mg/kg body weight/day	Through the skin
Users / Long-term systemic effects	6.3 mg/kg body weight/day	Ingestion
Users / Acute systemic effects	7,5 mg/kg body weight/day	Ingestion

PNEC - 2-butoxyethanol

Environment	Value
Freshwater	8.8 mg/l (rating factor – 10)
Marine water	0.22 mg/l (rating factor – 100)
Biological treatment plant	463 mg/l
Single release	34.6 mg/l
Marine sediment	3.46 mg/l
Ground	2.33 mg/kg dry material

8.2 Exposure controls

8.2.1 Appropriate engineering controls: No information available.

8.2.2 Individual protection measures, such as personal protective equipment:

Personal protective equipment must comply with EN standards: respirator EN 136, 140, 149; safety glasses EN 166; protective clothing: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, protective shoes EN-ISO 20345.

- General: General instructions for personal protection:
  Avoid contact with skin, eyes and clothes. Remove contaminated clothing and launder before reuse. Make sure eyewash stations and safety showers are close to where the product is to be used.
- Eye/face protection: Protective goggles.
- Skin protection: Protective work clothes.

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• Hand protection	Glove material: nitrile rubber Break-through time: > 480 min Glove thickness: 0.4 mm Camatril® 730. Gloves should be inspected before use. Change gloves regularly. Note: Specifications are based on information and tests of similar substances by analogy. Due to different conditions (e.g., temperature or other loads), it should be taken into account that the use of a chemical protective glove in practice can be much shorter than the breakthrough time determined in accordance with EN 374. Because the actual conditions of practical use often deviate from the standardized conditions according to EN 374, the glove manufacturer recommends the use of gloves to protect against chemicals in practice no more than 50% of the recommended breakthrough time. Due to the wide range of types of gloves, it is necessary to follow the manufacturer's instructions for use.
• Respiratory protection	If vapors are generated, use a respirator with an approved filter.
• Thermal hazards	No information available.
8.2.3 Environmental exposure controls:	Handle in accordance with local environmental regulations and good industrial practice.
Additional information:	No information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	**Value/Unit/Method**
Physical state	Liquid
Colour	Light yellow
Odour	Mild
Odor threshold limit value	No information available.
Melting point/freezing point	No information available.
Boiling point or initial boiling point and boiling range	No information available.
Flammability	No information available.
Lower/upper explosive limit	No information available.
Flash point	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
pH	>11 (20 °C)
Kinematic viscosity	No information available.
Solubility	No information available.
Partition coefficient n-octanol/water (log value)	No information available.
Vapor pressure	No information available.
Density and/or relative density	1.10 g/cm³ at 20 °C
Relative density	No information available.
Relative vapor density	No information available.
Particle characteristics	No information available.
Oxidizing properties	The product is not oxidizing
9.2 Other information:	
9.2.1 Information with regard to physical hazard classes	No information available.
9.2.2 Other safety characteristics	No information available.
Additional information:	No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity	There is no risk of reactivity under normal storage and handling conditions.
10.2 Chemical stability	Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions	There are no known specific conditions that should be avoided.
10.4 Conditions to avoid	There are no known specific conditions that should be avoided.
10.5 Incompatible Materials	No information available.
10.6 Hazardous decomposition products	Under the prescribed conditions of storage and handling, the product does not decompose.
Additional information:	No information available.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 (CLP)

Acute toxicity: The mixture is not classified.

Ingredients that may contribute to acute oral toxicity:
2-butoxyethanol, LD 50 (oral): ATE 500 mg/kg
tetrasodium ethylenediaminetetraacetate, LD 50 (oral): ATE 500 mg/kg
Alcohols, C9-11-iso-, C10-rich, ethoxylated, LD 50 (oral): ATE 500 mg/kg
Calculated estimated value for acute oral toxicity ATE (mixtures): 1515 mg/kg
The mixture is therefore classified in category 4 Acute toxicity (oral).

Ingredients that may contribute to acute dermal toxicity:
There are no suitable ingredients in the mixture. The mixture is not classified according to acute toxicity (dermal).

Ingredients that may contribute to acute inhalation toxicity:
2-butoxyethanol, LC 50 (inhalation): ATE 3 mg/l/4h
Calculated estimated value for acute inhalation toxicity ATE (mixture): 37 mg/l/4h
The mixture is therefore not classified as acutely toxic (inhalation).

Skin corrosion/irritation: Result: the mixture is classified as category 1.

Serious eye damage/irritation: Substances classified as corrosive substances of category 1B also cause severe eye damage. Result: the mixture is classified as category 1.

Respiratory or skin sensitisation: The mixture is not classified.

Germ cell mutagenicity: The mixture is not classified.

Carcinogenicity: The mixture is not classified.

Reproductive toxicity: The mixture is not classified.

STOT – single exposure: The mixture is not classified.

Components that may contribute to specific target organ toxicity - single exposure:
Respiratory tract irritation:
Important substances:
disodium metasilicate, Substance Classification: Category 3
The mixture is not classified as specific target organ toxicity - single exposure: respiratory tract irritation.

Components that may contribute to specific target organ toxicity - single exposure:
Narcotic effects:

Important substances:

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	propan-2-ol, Substance classification: Category 3 The mixture is not classified in Specific target organ toxicity - single exposure: Narcotic effects.
STOT - repeated exposure:	The mixture is not classified.
Aspiration hazard:	The mixture is not classified.
Information on likely routes of exposure:	No information available.
Symptoms related to the physical, Chemical and toxicological characteristics:	No information available.
Delayed and immediate effects as Well as chronic effects from short and long-term exposure:	No information available.
Interactive effects	No information available.
Absence of specific data:	No information available.
Mixture versus substance information:	No information available.

11.2 Information on other hazards

Endocrine disruptor properties:	No information available.
Other information:	No information available.

SECTION 12: Ecological information

12.1 Toxicity

The ecotoxicological assessment is based on data on the toxicity of the ingredients that make up the product.

tetrasodium ethylenediaminetetraacetate

Result	Species	Exposure / method
Acute LC50 > 100 mg/l	Fish – *Lepomis macrochirus*	96h / OPP 72-1 (EPA Directive)
Chronic NOEC >= 36.9 mg/l	Fish – *Brachydania rerio*	35d / OECD Test Guideline 210
Acute EC50 > 100 mg/l	Water plants – Scenedesmus obliquus	72h /88/302/EWG
Acute EC50 > 100 mg/l	Aquatic Invertebrates – Daphnia magna	48h / DIN 38412
Chronic NOEC 25 mg/l	Aquatic Invertebrates – Daphnia magna	21d / OECD Test Guideline 211
Acute EC20 > 500 mg/l	Microorganisms – activated sludge	30 min/ OECD Test Guideline 209
Chronic NOEC 84 mg/kg	Terrestrial plants	21d

2-propanol

Result	Species	Exposure / method
Acute EC50 10100 mg/l, fresh water	Aquatic invertebrates – Daphnia magna	48h
Acute LC50 1400000 µg/l, sea water	Aquatic invertebrates - Crangon crangon	48h
Acute LC50 4200 mg/l, fresh water	Fish – Rasbora heteromorpha	96h

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butoxyethanol

Result	Species	Exposure / method
Acute LC50 1474 mg/l	Fish – *Oncorhynchus mykiss*	96h / OECD Test Guideline 203
Chronic NOEC > 100 mg/l	Fish – *Danio rerio*	21d / OECD Test Guideline 204
Acute EC50 911 mg/l	Water plants - *Pseudokirchneriella subcapitata*	72h / OECD Test Guideline 201
Acute EC50 1800 mg/l	Aquatic invertebrates – Daphnia magna	48h / OECD Test Guideline 202
Chronic NOEC > 100 mg/l	Aquatic invertebrates – Daphnia magna	21d / OECD Test Guideline 211

12.2 Persistence and degradability

The surfactants found in this detergent meet the criterion of complete aerobic biodegradability given in accordance with Regulation 648/2004/EC.

Biodegradability of the component included in the composition of the product:
2-butoksietanol, CAS: 111-76-2
Biodegradation: 90.4%
Exposure time: 28 days
Result: Easily biodegradable.
Method: OECD Test Guideline 301B

12.3 Bioaccumulative potential

Bioaccumulative potential of the component included in the composition of the product:
2-propanol, CAS: 67-63-0
LogPow 0.05 - low bioaccumulation potential

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

Does not meet the criteria for identification as PBT and vPvB.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment of mixture:

When removing - do not mix with municipal waste. You must hand over the used product, waste or unused parts of the product to an authorized person who collects and handles waste in accordance with national regulations and legislation on waste.

The owner or other owner of the waste, or the authorized operator, is obliged to classify the waste in the prescribed manner, carry out testing of hazardous waste and waste that may be dangerous due to its origin, composition and properties.

It is forbidden to mix it with other types of waste that pose a greater risk to the environment.

EWC code: No information available.

Waste treatment of packaging: No information available.

EWC code: 15 01 10* Packaging containing residues of dangerous substances or contaminated with dangerous substances

Additional information: No information available.

SECTION 14: Transport information

14.1 UN number and ID number: 1760

14.2 UN proper shipping name: ADR/RID - CORROSIVE LIQUID IMDG - CORROSIVE LIQUID
14.3 Transport hazard class(es):
ADR/RID 8
IMDG 8
IATA 8
14.4 Packing group:
ADR/RID III
IMDG III
IATA III
14.5 Environmental hazards: According to traffic regulations, it is not classified as dangerous.
14.6 Special precautions for user: No
14.7 Maritime transport in bulk according to IMO instruments: Not transported in bulk.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 on registration, evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency and amending the Directive 1999/45 / EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 and Council Directives 76/769 / EEC and Commission Directives 91/155 / EEC, 93/67 / EEC, 93/105 / EC and 2000/21 / EC (as amended by Commission Regulation (EU) No. 830/2015) - with amendments
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548 / EEC and 1999/45 / EC and amending Regulation (EC) No 1234/2007.

15.2 Chemical safety assessment
No information available.

SECTION 16: Other information

Changes to the safety data sheet: No information available.

Abbreviations:
CLP - Classification, Labelling and Packaging
DNEL – Derived No-Effect Level
EWC code - six-digit code used to identify waste as listed in the European Waste Catalogue
PNEC - Predicted concentration without effect
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals
STOT – Specific Target Organ Toxicity
UFI - the 16-character unique formula identifier (UFI) code

Resources for creating a safety data sheet: AS-SENS - SI (Revision date: 10.10.2023)

List of relevant hazard statements and/or precautionary statements under sections 2 to 15:
H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.

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H400 Very toxic to aquatic life.

Training for workers: No information available.

Recommended usage restrictions: No information available.

The information in the safety data sheet is based on our knowledge and available information. The safety data sheet indicates the product and the safety measures prescribed for it. The safety data sheet does not guarantee the quality of the product. A legal or natural person who places a chemical on the market is not responsible for any improper use, only this and the resulting consequences.

- End of safety data sheet -

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Trade name: AS-CALC
Product code: No information available.
UFI: F6D1-60PE-800P-K5JN

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Identified uses: Concentrated agent for cleaning objects with deposits of calcium carbonate (limescale) with ultrasonic cleaning - washing in ultrasonic baths and bathrooms.
Uses advised against: Do not use for purposes other than those recommended.

1.3 Details of the supplier of the safety data sheet:

Manufacturer:
ASONIC d.o.o.
Tržaška cesta 134
1000 Ljubljana, Slovenia
Phone: + 386 41 566618
e-mail: order@asonic.si

1.4 Emergency telephone number:

Belgium: 070 245 245
Bulgaria: +359 2 9154 233
Croatia: +3851 2348 342 (24/7 in Croatian and English).
Czech Republic: +420 224 919 293, +420 224 915 402
Denmark: +45 8212 1212
Estonia: 112 (National emergency telephone number (Häirekeskuse number)); 16662 (nationally) and +372) 7943 794 (calling from abroad)
Finland: 0800 147 111, 09 471 977 (Open 24 hours a day)
France: + 33 (0)1 45 42 59 59
Greece: (0030) 2107793777
Hungary: +36-80-201-199 (0-24h, free of charge)
Ireland: 01 809 2566
Italy (CAP, Phone Number, City): 00165 06 68593726 (Roma); 71122 800183459 (Foggia); 80131 081-5453333 (Napoli); 161 06-49978000 (Roma); 168 06-3054343 (Roma); 50134 055-7947819 (Firenze); 27100 0382-24444 (Pavia); 20162 02-66101029 (Milano); 24127 800883300 (Bergamo); 37126 800011858 (Verona).
Latvia: Valsts ugunsdzēsības un glābšanas dienests, phone number: 112. Toksikoloģijas un sepses klīnikas Saindēšanās un zāļu informācijas centrs, Hipokrāta 2, Rīga, Latvija, LV-1038, phone number +371 67042473. Service is available 24 hours.
Lithuania: +370 (85) 2362052
Luxembourg: (+352) 8002 5500 (24/7, experts answer in French, Dutch and English)
The Netherlands: +31 (0)88 755 8000
Norway: 22 59 13 00 (Open 24 hours a day, 7 days a week.)
Portugal: +351 800 250 250
Romania: +40213183606
Slovakia: +421 2 5477 4166
Slovenia: 112
Spain: + 34 91 562 04 20 (available 24h/365 days)
Sweden: 112

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture:

2.1.1 Classification according to Regulation (EC) No 1272/2008 (CLP)

Eye Dam. 1, H318 (Serious eye damage/Eye irritation, Category 1, H318)
STOT SE 3, H335 (Specific Target Organ Toxicity - Single exposure: Respiratory tract irritation, Category 3, H335)

2.2 Label elements:

2.2.1 Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word(s): Danger

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Hazard pictogram(s):

Hazard statement(s):
H318 Causes serious eye damage.
H335 May cause respiratory irritation.

Precautionary statement(s):
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P304 + P340: IF INHALED Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor/...
P312 Call a POISON CENTER/doctor/... if you feel unwell.
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P501 Dispose of contents/container to according to regulations.

Contains:
Citric acid; 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts; Oxirane, 2-methyl-, polymer with oxirane, mono(2-propylheptyl) ether

2.3 Other hazards:
The mixture does not meet the criteria for classification as PBT and vPvB.

SECTION 3: Composition/information on ingredients

3.1 Mixture

Description of the substance/mixture: No information available.

Substance	EC No.	CAS No.	Index No.	CLP-classification	Concentration % (w/w)	REACH Reg. No.
Citric acid	/	77-92-9	607-750-00-3	Eye Irrit. 2, H319 STOT SE 3, H335	15 - 35	/
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	263-058-8	61789-40-0	/	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Acute 1, H400	1-5	/
Oxirane, 2-methyl-, polymer with oxirane, mono(2-propylheptyl) ether	605-450-7	166736-08-9	/	Acute Tox. 4, H302 Eye Dam. 1, H318	2 - 12	/

More information: Please see section 16 for the full text of H- / EUH-phrases.

SECTION 4: First aid measures

4.1 Description of first aid measures

General: Remove contaminated clothing.
Inhalation: Provide fresh air. If in doubt or if symptoms persist, seek medical advice.

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Skin contact**:**	Wash skin with water/shower. If in doubt or if symptoms persist, seek medical advice.
Eye contact:	Rinse thoroughly with clean, running water for at least 10 minutes, keeping the eyelids open. In case of eye irritation, seek medical attention.
Ingestion:	Rinse mouth. If you feel unwell, call the doctor.
Protection of the first aider:	No information available.

4.2 Most important symptoms and effects, both acute and delayed
Irritation, cough, difficult breathing.

4.3 Indication of any immediate medical attention and special treatment needed
No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:	Adjust the fire extinguishing measures to the environmental conditions. Sprayed water jet, alcohol-resistant foam, dry extinguishing powder, BC powder, carbon dioxide (CO_2).
Unsuitable extinguishing media:	Full water jet.
5.2 Special hazards arising from the substance or mixture	The components of the mixture burn. The product itself does not burn. Hazardous combustion products: Carbon monoxide (CO), Carbon dioxide (CO_2).
5.3 Advice for firefighters	In case of fire and/or explosion, do not breathe smoke. Extinguish the fire from a safe distance and using normal precautions. Wear a self-contained breathing apparatus.
Additional information:	No information available.

SECTION 6: Accidental release measures

6.1 Personal safety measures, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:	Avoid contact with skin, eyes and clothes. Do not inhale vapour/aerosol.
6.1.2 For emergency responders:	No information available.
6.2 Environmental precautions	Keep away from drainage pipes, surface and underground water. The product is an acid. As a rule, neutralization is required before discharging wastewater into a treatment plant.

6.3 Methods and materials for containment and cleaning up

6.3.1 Spill Containment:	Covering drainage pipes.
6.3.2 Spill clean-up:	Collect with liquid binding material (sand, diatomaceous earth, acid binder, universal binder). Transfer to appropriate containers for disposal.
6.3.3 Other information:	No information available.
6.4 References to other sections	Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. For disposal see section 13.
Additional information:	No information available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations for preventing fire, the formation of aerosols and dust, and for protecting the environment:	Ensuring adequate ventilation.

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Advice on general occupational hygiene:	Wash your hands before breaks and at the end of work. Keep away from food, drink and animal feed.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:	Keep the packaging tightly closed.
Packaging materials:	No information available.
Requirements for storage areas and containers:	Follow the instructions for combined storage. Recommended storage temperature: 15 – 25 °C
Storage class:	No information available.
7.3 Specific end use(s)	No information available.
Recommendations:	No information available.
Specific uses for industry:	No information available.
Additional information:	No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.1.1 Occupational exposure limit:

Substance	CAS No.	Country	Limit values 8h		Limit value - Short term		Remarks
			mg/m3	ppm	mg/m3	ppm	
Citric acid	77-92-9	Germany (AGS)	/	2 (1)	/	4 (1)(2)	(1) Inhalable fraction (2) 15 minutes average value
Citric acid	77-92-9	Germany (DFG)	/	2 (1)	/	4 (1)(2)	(1) Inhalable fraction and vapour (2) 15 minutes average value
Citric acid	77-92-9	Switzerland	/	2 (1)	/	4 (1)(2)	(1) Inhalable fraction (2) 15 minutes average value

8.1.2 Biological limit values:

Substance	CAS No.	Parameter	Biological limits values (BAT)	Biological sample	Sampling time
/	/	/	/	/	/

8.1.3 DNEL:
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts 61789-40-0
DNEL 8,22 [mg/m³] inhalation systemic

8.1.4 PNEC:
Citric acid 77-92-9 PNEC 0.44 mg/l aquatic organisms freshwater short-term (single exposure)
Citric acid 77-92-9 PNEC 0.044 mg/l aquatic organisms sea water short-term (single exposure)
Citric acid 77-92-9 PNEC 1,000 mg/l aquatic organisms wastewater treatment plants (WTP) short-term (single exposure)
Citric acid 77-92-9 PNEC 34.6 mg/kg freshwater aquatic organisms sediment short-term (single exposure)
Citric acid 77-92-9 PNEC 3.46 mg/kg aquatic organisms marine sediment short-term (single exposure)
Citric acid 77-92-9 PNEC 33.1 mg/kg terrestrial organisms, soil organisms short-term (single exposure)

8.2 Exposure controls

8.2.1 Appropriate engineering controls:	No information available.
8.2.2 Individual protection measures, such as personal protective equipment:	
• General	No information available.

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• Eye/face protection	Use safety glasses with side shields.
• Skin protection	No information available.
• Hand protection	Wear protective gloves. Chemical protection gloves tested in accordance with EN 374 are suitable. In case of special use, it is recommended to check the chemical resistance of the mentioned protective gloves with the supplier of the gloves. The times are approximate values measured at 22 °C and with continuous contact. Increased temperatures due to heating of substances, body heat, etc. reduce the efficiency of the layer thickness due to expansion can lead to a significant reduction in breakthrough time. If in doubt, contact the manufacturer. At approximately 1.5 times larger/smaller layer thickness, it is suitable the penetration time is doubled/halved. The data refer only to the pure substance. When the substances are transferred to the mixture, the data can only be considered as a recommendation.
• Respiratory protection	Respiratory protection is required when: Formation of aerosols or mists. Type: ABEK (combined gas and vapor filter, color code: brown/grey/yellow/green).
• Thermal hazards	No information available.
8.2.3 Environmental exposure controls:	Keep away from drainage pipes, surface and underground water.
Additional information:	No information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	**Value/Unit/Method**
Physical state	Liquid
Colour	Light yellow
Odour	None
Odor threshold limit value	No information available.
Melting point/freezing point	No information available.
Boiling point or initial boiling point and boiling range	~100 °C at 1,013 hPa
Flammability	No information available.
Lower/upper explosive limit	No information available.
Flash point	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
pH	<7 (20 °C)
Kinematic viscosity	No information available.
Solubility	In water: can be mixed in any ratio/completely miscible with water.
Partition coefficient n-octanol/water (log value)	No information available.
Vapor pressure	No information available.
Density and/or relative density	1.10 g/cm³ at 20 °C
Relative density	No information available.
Relative vapor density	No information available.
Particle characteristics	No information available.
Oxidising properties	The product is not oxidizing
9.2 Other information:	
9.2.1 Information with regard to physical hazard classes	No information available.
9.2.2 Other safety characteristics	No information available.
Additional information:	No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity The product is not reactive under normal conditions.

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10.2 Chemical stability	The material is stable under the environmental and intended conditions (temperature and pressure) of storage and handling.
10.3 Possibility of hazardous reactions	Violent reactions with: strong oxidants, reducing agents, metals, bases.
10.4 Conditions to avoid	There are no known specific conditions that should be avoided.
10.5 Incompatible Materials	Various metals.
10.6 Hazardous decomposition products	Hazardous combustion products: see section 5.
Additional information:	No information available.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 (CLP)

Acute toxicity:	The mixture is not classified. Ingredients that may contribute to acute oral toxicity: Oxirane, 2-methyl-, polymer with oxirane, mono(2-propylheptyl) ether, LD 50 (oral): ATE 500 mg/kg Calculated estimated value for acute oral toxicity ATE (mixture): 4166 mg/kg The mixture is not classified according to acute toxicity (oral). Ingredients that may contribute to acute dermal toxicity: There are no suitable ingredients in the mixture. The mixture is not classified according to acute toxicity (dermal). Ingredients that may contribute to acute inhalation toxicity: There are no suitable ingredients in the mixture. The mixture is not classified for acute toxicity (inhalation).
Skin corrosion/irritation:	The mixture is not classified.
Serious eye damage/irritation:	Result: the mixture is classified as category 1.
Respiratory or skin sensitisation:	The mixture is not classified.
Germ cell mutagenicity:	The mixture is not classified.
Carcinogenicity:	The mixture is not classified.
Reproductive toxicity:	The mixture is not classified.
STOT – single exposure:	Important substances: citric acid, Substance classification: Category 3 Result: the mixture is classified in category 3 (Respiratory tract irritation).
STOT - repeated exposure:	Important substances: citric acid, Substance classification: Category 3 General limit values (GCL) must be observed: Category 3: 20% Result: the mixture is classified in category 3 (Respiratory tract irritation).
Aspiration hazard:	The mixture is not classified.
Information on likely routes of exposure:	The mixture is not classified.
Symptoms related to the physical, Chemical and toxicological characteristics:	If in eyes: Causes severe eye irritation Inhalation: Irritation of the respiratory tract, cough, difficulty breathing
Delayed and immediate effects as Well as chronic effects from short and long-term exposure:	No information available.
Interactive effects	No information available.

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Absence of specific data:	No information available.
Mixture versus substance information:	No information available.

11.2 Information on other hazards

Endocrine disruptor properties:	No information available.
Other information:	No information available.

SECTION 12: Ecological information

12.1 Toxicity

Not classified as hazardous to the aquatic environment.
Toxicity of the components of the mixture to aquatic organisms (acute).

Citric acid CAS-77-92-9, LC50- 440 mg/l, fish -48 h
Biodegradation - no data available.

Oxirane, 2-methyl-, polymer with oxirane, mono (2-propylheptyl) ether CAS 166736-08-9
Harmful to aquatic organisms
Toxicity to fish:
LC50 (96 h) > 10 - 100 mg/l, Brachydanio rerio (OECD Directive 203)
Aquatic invertebrates:
EC50 (48 h) > 10 - 100 mg/l, Daphnia magna
Aquatic plants:
EC50 (72 h) > 10 - 100 mg/l, Scenedesmus subspicatus
Microorganisms / effect on activated sludge:
EC50 (0.5 h), bacteria, not determined
Chronic toxicity to fish: No data available.
Chronic toxicity to aquatic invertebrates: No data available.
Assessment of soil toxicity: No data of soil toxicity.

12.2 Persistence and degradability

Citric acid CAS-77-92-9 biotic/abiotic, 98% 2 days

Oxirane, 2-methyl-, polymer with oxirane, mono (2-propylheptyl) ether CAS 166736-08-9
Excretion data: >= 90% bismuth - active substance (mod. OECD 303A)
Analogy: Evaluation based on chemically similar products.
> 60% of the formation of the theoretical CO2 value (28 d) (OECD 301B; ISO 9439; 92/69/EWG, C.4-C)
Readily biodegradable.

12.3 Bioaccumulative potential

No information available.
Bioaccumulative potential of the components of the mixture

Citric acid CAS-77-92-9
log KOW, -1.64

Oxirane, 2-methyl-, polymer with oxirane, mono (2-propylheptyl) ether CAS 166736-08-9
Assessment of potential bioaccumulation: No increase in concentration in organisms is expected.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

Does not meet the criteria for identification as PBT and vPvB.

12.6 Endocrine disrupting properties

No information available.

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12.7 Other adverse effects No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment of mixture:	The chemical and its packaging must be disposed of as hazardous waste. Dispose of contents/packaging in accordance with local/regional/national/international regulations. Discharge of waste water to sewers - relevant information: Do not discharge into sewers. Relevant legal provisions on waste (Basel Convention) Properties of waste that make them dangerous: H11 Toxic (subsequent or chronic) Remarks Waste is classified into categories that can be handled separately by local or state waste management facilities. Follow all applicable state and regional regulations.
EWC code:	No information available.
Waste treatment of packaging:	No information available.
EWC code:	15 01 10* Packaging containing residues of dangerous substances or contaminated with dangerous substances
Additional information:	No information available.

SECTION 14: Transport information

14.1 UN number and ID number: 1760

14.2 UN proper shipping name: ADR/RID - CORROSIVE LIQUID IMDG - CORROSIVE LIQUID
14.3 Transport hazard class(es):
ADR/RID 8
IMDG 8
IATA 8
14.4 Packing group:
ADR/RID III
IMDG III
IATA III
14.5 Environmental hazards: According to traffic regulations, it is not classified as dangerous.
14.6 Special precautions for user: No
14.7 Maritime transport in bulk according to IMO instruments: Not transported in bulk.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 on registration, evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency and amending the Directive 1999/45 / EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 and Council Directives 76/769 / EEC and Commission Directives 91/155 / EEC, 93/67 / EEC, 93/105 / EC and 2000/21 / EC (as amended by Commission Regulation (EU) No. 830/2015) - with amendments
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548 / EEC and 1999/45 / EC

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and amending Regulation (EC) No 1234/2007.

15.2 Chemical safety assessment
No information available.

SECTION 16: Other information

Changes to the safety data sheet: No information available.

Abbreviations:
CLP - Classification, Labelling and Packaging
DNEL – Derived No-Effect Level
EWC code - six-digit code used to identify waste as listed in the European Waste Catalogue
PNEC - Predicted concentration without effect
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals
STOT – Specific Target Organ Toxicity
UFI - the 16-character unique formula identifier (UFI) code

Resources for creating a safety data sheet: AS-CALC - SI (Revision date: 10.10.2023)

List of relevant hazard statements and/or precautionary statements under sections 2 to 15:
H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.

Training for workers: No information available.

Recommended usage restrictions: No information available.

The information in the safety data sheet is based on our knowledge and available information. The safety data sheet indicates the product and the safety measures prescribed for it. The safety data sheet does not guarantee the quality of the product. A legal or natural person who places a chemical on the market is not responsible for any improper use, only this and the resulting consequences.

- End of safety data sheet -

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:
Trade name: AS-METAL
Product code: No information available.
UFI: G3D1-Q000-Y005-WTYK

1.2 Relevant identified uses of the substance or mixture and uses advised against:
Identified uses: Alkaline cleaner/ detergent
Uses advised against: No further relevant information available.

1.3 Details of the supplier of the safety data sheet:

Manufacturer:
ASONIC d.o.o.
Tržaška cesta 134
1000 Ljubljana, Slovenia
Phone: + 386 41 566618
e-mail: order@asonic.si

1.4 Emergency telephone number:
Belgium: 070 245 245
Bulgaria: +359 2 9154 233
Croatia: +3851 2348 342 (24/7 in Croatian and English).
Czech Republic: +420 224 919 293, +420 224 915 402
Denmark: +45 8212 1212
Estonia: 112 (National emergency telephone number (Häirekeskuse number)); 16662 (nationally) and +372) 7943 794 (calling from abroad)
Finland: 0800 147 111, 09 471 977 (Open 24 hours a day)
France: + 33 (0)1 45 42 59 59
Greece: (0030) 2107793777
Hungary: +36-80-201-199 (0-24h, free of charge)
Ireland: 01 809 2566
Italy (CAP, Phone Number, City): 00165 06 68593726 (Roma); 71122 800183459 (Foggia); 80131 081-5453333 (Napoli); 161 06-49978000 (Roma); 168 06-3054343 (Roma); 50134 055-7947819 (Firenze); 27100 0382-24444 (Pavia); 20162 02-66101029 (Milano); 24127 800883300 (Bergamo); 37126 800011858 (Verona).
Latvia: Valsts ugunsdzēsības un glābšanas dienests, phone number: 112. Toksikoloģijas un sepses klīnikas Saindēšanās un zāļu informācijas centrs, Hipokrāta 2, Rīga, Latvija, LV-1038, phone number +371 67042473. Service is available 24 hours.
Lithuania: +370 (85) 2362052
Luxembourg: (+352) 8002 5500 (24/7, experts answer in French, Dutch and English)
The Netherlands: +31 (0)88 755 8000
Norway: 22 59 13 00 (Open 24 hours a day, 7 days a week.)
Portugal: +351 800 250 250
Romania: +40213183606
Slovakia: +421 2 5477 4166
Slovenia: 112
Spain: + 34 91 562 04 20 (available 24h/365 days)
Sweden: 112

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture:

2.1.1 Classification according to Regulation (EC) No 1272/2008 (CLP)
Skin Corr. 1A, H314 (Skin corrosion/irritation, Hazard Category 1A, H314)
Eye Dam. 1, H318 (Serious eye damage/Eye irritation, Category 1, H318)

2.2 Label elements:

2.2.1 Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word(s): Danger

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Hazard pictogram(s):

Hazard statement(s):
H314 Causes severe skin burns and eye damage.

Precautionary statement(s):
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.

Contains:
Kokosalkylaminethoxylat; potassium hydroxide; C9-C11 Alkyl alcohol, exthoxylated

Regulation (EC) No 648/2004 on detergents: non-ionic surfactants (≥5 - <15%)

2.3 Other hazards:
The mixture does not meet the criteria for classification as PBT and vPvB.

SECTION 3: Composition/information on ingredients

3.1 Mixture

Description of the substance/mixture: Mixture of substances listed below with non-hazardous additions.

Substance	EC No.	CAS No.	Index No.	CLP-classification	Concentration % (w/w)	REACH Reg. No.
benzenesulfonic acid, 4-(1-methylethyl)-, sodiumsalt (1:1)	239-854-6	15763-76-5	/	Eye Irrit. 2, H319	2.5-10	01-2119489411-37
Kokosalkylaminethoxylat	/	61791-14-8	/	Eye Dam. 1, H318 Aquatic Acute 1, H400 Acute Tox. 4, H302 Skin Irrit. 2, H315	2.5-10	/
N,N-Dimethyl 9-decenamide	806-919-0	1356964-77-6	/	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Chronic 3, H412	2.5-10	01-2120058432-61-xxxx
C9-C11 Alkyl alcohol, exthoxylated	/	68439-46-3	/	Eye Dam. 1, H318 Acute Tox. 4, H302	≤2.5	/
potassium hydroxide*	215-181-3	1310-58-3	019-002-00-8	Skin Corr. 1A, H314; Acute Tox. 4, H302	≤2.5	01-2119487136-33-xxxx
Silicic acid, potassium salt	215-199-1	1312-76-1	/	Skin Irrit. 2, H315 Eye Irrit. 2, H319	0-≤2.5%	01-2119456888-17-xxxx

More information: Please see section 16 for the full text of H- / EUH-phrases.

Note: * Specific concentration limits:
Skin Corr. 1A; H314: C ≥ 5 %
Skin Corr. 1B; H314: 2 % ≤ C < 5 %
Skin Irrit. 2; H315: 0.5 % ≤ C < 2 %
Eye Irrit. 2; H319: 0.5 % ≤ C < 2 %

SECTION 4: First aid measures

4.1 Description of first aid measures

General:	Immediately remove any clothing soiled by the product.
Inhalation:	In case of unconsciousness place patient stably in side position for transportation. Supply fresh air; consult doctor in case of complaints.
Skin contact**:**	Immediately rinse with water.
Eye contact:	Rinse opened eye for several minutes under running water. Then consult a doctor.
Ingestion:	Do not induce vomiting; call for medical help immediately. Rinse out mouth and then drink plenty of water.
Protection of the first aider:	No information available.

4.2 Most important symptoms and effects, both acute and delayed
No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:	Use fire extinguishing methods suitable to surrounding conditions.
Unsuitable extinguishing media:	No further relevant information available.
5.2 Special hazards arising from the substance or mixture	No information available.
5.3 Advice for firefighters	Mouth respiratory protective device.
Additional information:	No information available.

SECTION 6: Accidental release measures

6.1 Personal safety measures, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:	Ensure adequate ventilation
6.1.2 For emergency responders:	No information available.
6.2 Environmental precautions	Dilute with plenty of water. Do not allow to enter sewers/ surface or ground water.
6.3 Methods and materials for containment and cleaning up	
6.3.1 Spill Containment:	Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Use neutralising agent. Dispose contaminated material as waste according to section 13. Ensure adequate ventilation.
6.3.2 Spill clean-up:	No information available.
6.3.3 Other information:	No information available.
6.4 References to other sections	See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.
Additional information:	No information available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations for preventing fire, the formation of aerosols and dust, and for protecting the environment:	Use only in well-ventilated areas. Prevent formation of aerosols. Keep respiratory protective device available.
Advice on general occupational hygiene:	No information available.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:	No special requirements.
Packaging materials:	No special requirements.
Requirements for storage areas and containers:	Protect from frost.
Storage class:	8 B

7.3 Specific end use(s)

Recommendations:	No further relevant information available.
Specific uses for industry:	No further relevant information available.

Additional information: No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.1.1 Occupational exposure limit:

Substance	CAS No.	Country	Limit values 8h		Limit value - Short term		Remarks
			mg/m3	ppm	mg/m3	ppm	
potassium hydroxide	1310-58-3	/	/	/	2 mg/m³	/)	OEL

8.1.2 Biological limit values:

Substance	CAS No.	Parameter	Biological limits values (BAT)	Biological sample	Sampling time
/	/	/	/	/	/

8.1.3 DNEL: No information available.

8.1.4 PNEC: No information available.

8.2 Exposure controls

8.2.1 Appropriate engineering controls:	No further data; see section 7.
8.2.2 Individual protection measures, such as personal protective equipment:	
• General	Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.
• Eye/face protection	Tightly sealed goggles
• Skin protection	No information available.

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• Hand protection	Protective gloves. Material of gloves: the selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application. Nitrile rubber, NBR Recommended thickness of the material: ≥ 0.35 mm Penetration time of glove material: the exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
• Respiratory protection	Use suitable respiratory protective device only when aerosol or mist is formed.
• Thermal hazards	No information available.
8.2.3 Environmental exposure controls:	No information available.
Additional information:	No information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	**Value/Unit/Method**
Physical state	Fluid
Colour	Violet
Odour	Characteristic
Odor threshold limit value	No information available.
Melting point/freezing point	No information available.
Boiling point or initial boiling point and boiling range	No information available.
Flammability	No information available.
Lower/upper explosive limit	No information available.
Flash point	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
pH	>13 (20 °C)
Kinematic viscosity	No information available.
Solubility	In water: Fully miscible.
Partition coefficient n-octanol/water (log value)	No information available.
Vapor pressure	No information available.
Density and/or relative density	1.07-1.09 g/cm³ at 20 °C
Relative density	No information available.
Relative vapor density	No information available.
Particle characteristics	No information available.
Explosion properties	Product does not present an explosion hazard.
9.2 Other information:	
9.2.1 Information with regard to physical hazard classes	No information available.
9.2.2 Other safety characteristics	No information available.
Additional information:	Solids content: 0.0 %

SECTION 10: Stability and reactivity

10.1 Reactivity	No further relevant information available.
10.2 Chemical stability	Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications.
10.3 Possibility of hazardous reactions	No dangerous reactions known.

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10.4 Conditions to avoid No further relevant information available.

10.5 Incompatible Materials No further relevant information available.

10.6 Hazardous decomposition products No dangerous decomposition products known.

Additional information: No information available.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 (CLP)

Acute toxicity: Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:		
15763-76-5 benzenesulfonic acid, 4-(1-methylethyl)-, sodiumsalt (1:1)		
Oral	LD50	>2,000 mg/kg (rat) (LD50 Oral)
Dermal	LD50	>2,000 mg/kg (rabbit)
1356964-77-6 N,N-Dimethyl 9-decenamide		
Oral	LD50	550 mg/kg (rat) (LD50)
Dermal	LD50	>5,000 mg/kg (rat) (LD 50 Dermal)
Inhalative	LC50/4 h	>3,551 mg/m³ (rat) (LC50)
68439-46-3 C9-C11 Alkyl alcohol, exthoxylated		
Oral	LD50	500 mg/kg (rat)
1310-58-3 potassium hydroxide		
Oral	LD50	333 mg/kg (rat) (LD50)
1312-76-1 Silicic acid, potassium salt		
Oral	LD50	>5,000 mg/kg (rat)

Skin corrosion/irritation: Causes severe skin burns and eye damage.

Serious eye damage/irritation: Causes serious eye damage.

Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT – single exposure: Based on available data, the classification criteria are not met.

STOT - repeated exposure: Based on available data, the classification criteria are not met.

Aspiration hazard: Based on available data, the classification criteria are not met.

Information on likely routes of exposure: No information available.

Symptoms related to the physical, Chemical and toxicological characteristics: **1356964-77-6 N,N-Dimethyl 9-decenamide**
Oral NOAEL 200 mg/kg/13 weeks (bea) (subchronic)

Delayed and immediate effects as Well as chronic effects from short and long-term exposure: No information available.

Interactive effects No information available.

Absence of specific data: No information available.

Mixture versus substance information: No information available.

11.2 Information on other hazards

Endocrine disruptor properties: None of the ingredients is listed.

Other information: No information available.

SECTION 12: Ecological information

12.1 Toxicity

1356964-77-6 N,N-Dimethyl 9-decenamide	
LC50	>7.5 mg/l /96 h (fish) (OECD 203)
EC50	>9 mg/l /96 h (algae) (OECD 201)
	2.8 mg/l /48 h (daphnia) (OECD 202)
NOEC	1.1 mg/l /96 h (algae) (OECD 201)
	0.28 mg/l /21 dni (daphnia)
	≥0.71 mg/l /35 dni (fish) (OECD 210)

12.2 Persistence and degradability No further relevant information available.

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

12.5 Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable.

12.6 Endocrine disrupting properties The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground. Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organism. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment of mixture: Must not be disposed together with household garbage. Do not allow product to reach sewage system.

EWC code: 12 03 01* aqueous washing liquids

Waste treatment of packaging: Uncleaned packaging:
Recommendation: Empty contaminated packaging thoroughly. They may be recycled after thorough and proper cleaning.
Recommended cleansing agents: Water, if necessary, together with cleansing agents.

EWC code: No information available.

Additional information: No information available.

SECTION 14: Transport information

14.1 UN number and ID number:
ADR, IMDG, IATA UN3266
14.2 UN proper shipping name:
ADR 3266 CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (POTASSIUM HYDROXIDE)
IMDG, IATA CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (POTASSIUM HYDROXIDE)
14.3 Transport hazard class(es):
ADR, IMDG, IATA

Class 8 Corrosive substances.
Label 8
14.4 Packing group:
ADR, IMDG, IATA III
14.5 Environmental hazards:
Marine pollutant: No
14.6 Special precautions for user:
Warning: Corrosive substances.
Hazard identification number (Kemler code): 80
EMS Number: F-A,S-B
Segregation groups (SGG18) Alkalis
Stowage Category A
Stowage Code SW2 Clear of living quarters.
Segregation Code SG35 Stow "separated from" SGG1-acids
14.7 Maritime transport in bulk according to IMO instruments:
Not applicable.
Transport/Additional information:
ADR
Limited quantities (LQ) 5L
Excepted quantities (EQ) Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml
Transport category 3
Tunnel restriction code E
IMDG
Limited quantities (LQ) 5L
Excepted quantities (EQ) Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml
UN "Model Regulation": UN 3266 CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (POTASSIUM HYDROXIDE), 8, III

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 on registration, evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency and amending the Directive 1999/45 / EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 and Council Directives 76/769 / EEC and Commission Directives 91/155 / EEC, 93/67 / EEC, 93/105 / EC and 2000/21 / EC (as amended by Commission Regulation (EU) No. 830/2015) - with amendments
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification,

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labelling and packaging of substances and mixtures, amending and repealing Directives 67/548 / EEC and 1999/45 / EC and amending Regulation (EC) No 1234/2007.

15.2 Chemical safety assessment
No information available. Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Changes to the safety data sheet: No information available.

Abbreviations:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

Resources for creating a safety data sheet: Original SDS (Revision date: 30.05.2023)

List of relevant hazard statements and/or precautionary statements under sections 2 to 15:
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.
H412 Harmful to aquatic life with long lasting effects.

Training for workers: No information available.

Recommended usage restrictions: No information available.

The information in the safety data sheet is based on our knowledge and available information. The safety data sheet indicates the product and the safety measures prescribed for it. The safety data sheet does not guarantee the quality of the product. A legal or natural person who places a chemical on the market is not responsible for any improper use, only this and the resulting consequences.

- End of safety data sheet -

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Trade name: AS-METALPAST
Product code: No information available.
UFI: 8XC1-P0M7-C006-K4TF

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Identified uses: Concentrated agents for washing and passivating, ultrasonic cleaning, immersion washing or manual washing of stainless, light and non-ferrous metals and materials (prochrome, aluminium, copper, brass, glass, plastic, etc.) and for passivating stainless steel, aluminium and metal alloys, which contain chromium.
Uses advised against: Do not use for purposes other than those recommended.

1.3 Details of the supplier of the safety data sheet:

Manufacturer:
ASONIC d.o.o.
Tržaška cesta 134
1000 Ljubljana, Slovenia
Phone: + 386 41 566618
e-mail: order@asonic.si

1.4 Emergency telephone number:

Belgium: 070 245 245
Bulgaria: +359 2 9154 233
Croatia: +3851 2348 342 (24/7 in Croatian and English).
Czech Republic: +420 224 919 293, +420 224 915 402
Denmark: +45 8212 1212
Estonia: 112 (National emergency telephone number (Häirekeskuse number)); 16662 (nationally) and +372) 7943 794 (calling from abroad)
Finland: 0800 147 111, 09 471 977 (Open 24 hours a day)
France: + 33 (0)1 45 42 59 59
Greece: (0030) 2107793777
Hungary: +36-80-201-199 (0-24h, free of charge)
Ireland: 01 809 2566
Italy (CAP, Phone Number, City): 00165 06 68593726 (Roma); 71122 800183459 (Foggia); 80131 081-5453333 (Napoli); 161 06-49978000 (Roma); 168 06-3054343 (Roma); 50134 055-7947819 (Firenze); 27100 0382-24444 (Pavia); 20162 02-66101029 (Milano); 24127 800883300 (Bergamo); 37126 800011858 (Verona).
Latvia: Valsts ugunsdzēsības un glābšanas dienests, phone number: 112. Toksikoloģijas un sepses klīnikas Saindēšanās un zāļu informācijas centrs, Hipokrāta 2, Rīga, Latvija, LV-1038, phone number +371 67042473. Service is available 24 hours.
Lithuania: +370 (85) 2362052
Luxembourg: (+352) 8002 5500 (24/7, experts answer in French, Dutch and English)
The Netherlands: +31 (0)88 755 8000
Norway: 22 59 13 00 (Open 24 hours a day, 7 days a week.)
Portugal: +351 800 250 250
Romania: +40213183606
Slovakia: +421 2 5477 4166
Slovenia: 112
Spain: + 34 91 562 04 20 (available 24h/365 days)
Sweden: 112

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture:

2.1.1 Classification according to Regulation (EC) No 1272/2008 (CLP)

Eye Dam. 1, H318 (Serious eye damage/Eye irritation, Category 1, H318)
STOT SE 3, H335 (Specific Target Organ Toxicity - Single exposure: Respiratory tract irritation, Category 3, H335)

2.2 Label elements:

2.2.1 Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word(s): Danger

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Hazard pictogram(s):

Hazard statement(s):
H318 Causes serious eye damage.
H335 May cause respiratory irritation.

Precautionary statement(s):
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor/...
P312 Call a POISON CENTER/doctor/... if you feel unwell.
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P501 Dispose of contents/container to according to regulations.

Contains:
Citric acid; Oxirane, 2-methyl-, polymer with oxirane, mono(2-propylheptyl) ether; Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts

2.3 Other hazards:
No information available.

SECTION 3: Composition/information on ingredients

3.1 Mixture

Description of the substance/mixture: No information available.

Substance	EC No.	CAS No.	Index No.	CLP-classification	Concentration % (w/w)	REACH Reg. No.
Citric acid	201-069-1	77-92-9	/	Eye Irrit. 2, H319 STOT SE 3, H335	30 - <50	/
Oxirane, 2-methyl-, polymer with oxirane, mono(2-propylheptyl) ether	605-450-7	166736-08-9	/	Acute Tox. 4, H302 Eye Dam. 1, H318	5 - < 15	/
Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts	270-115-0	68411-30-3	/	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3, H412	0 -<1	/

More information: Please see section 16 for the full text of H- / EUH-phrases.

SECTION 4: First aid measures

4.1 Description of first aid measures

General:	No information available.
Inhalation:	In case of inhalation of the product, take the exposed person to fresh air. If coughing and/or other breathing problems occur - seek medical help immediately.
Skin contact**:**	Immediately wash with plenty of water, cover with a sterile protective bandage, seek the help of a dermatologist.
Eye contact:	Rinse immediately under running water for at least 15 minutes with the eyelids open. Seek help from an eye doctor.
Ingestion:	Immediately rinse your mouth and drink 200-300 ml of water, seek medical help.
Protection of the first aider:	No information available.

4.2 Most important symptoms and effects, both acute and delayed

Eyes: redness, pain, blurred vision
Skin: redness, pain, burns, blisters
Ingestion: may be harmful if swallowed. If the substance enters the lungs, signs and symptoms may include coughing, choking, wheezing, difficulty breathing, chest tightness, shortness of breath, and/or fever.
Inhalation: harmful by inhalation. Rest, fresh air, medical assistance. Inhale the corticosteroid aerosol immediately.

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment (decontamination, checking of vital functions), specific antidote is unknown.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:	Carbon dioxide (CO_2), water spray, alcohol-resistant foam, dry powder.
Unsuitable extinguishing media:	Water jet

5.2 Special hazards arising from the substance or mixture: It is not flammable. In case of fire, the following can be released: carbon dioxide (CO_2); Carbon monoxide (CO), flammable gases/vapours. It is not flammable. There is no risk of explosion. Combustion products: Carbon monoxide (CO), carbon dioxide (CO_2).

5.3 Advice for firefighters: In case of fire: Wear self-contained breathing apparatus and protective suit.

Additional information: No information available.

SECTION 6: Accidental release measures

6.1 Personal safety measures, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:	Wear protective clothing. See section 8 for more information. Notify emergency personnel. Restrict access to the endangered area until the consequences of the accident are eliminated. Eliminate potential sources of ignition. Remove spilled product. Ensure adequate ventilation. Notify local authorities in accordance with applicable regulations. Avoid contact with skin, eyes and clothing. Prevent product from entering surface water, drains, groundwater or waterways.
6.1.2 For emergency responders:	No information available.

6.2 Environmental precautions: Do not allow to enter surface waters or sewers.

6.3 Methods and materials for containment and cleaning up

6.3.1 Spill Containment:	Stop leaks and runoff into the environment. Remove sources of ignition (open flame, sparks...).
6.3.2 Spill clean-up:	Collect the spilled agent mechanically with an adsorption material (sawdust, sand, earth) and remove it to a marked container for further disposal in accordance with the applicable waste management regulations. Comply with applicable laws and

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regulations.

6.3.3 Other information: No information available.

6.4 References to other sections: Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal: see section 13.

Additional information: No information available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations for preventing fire, the formation of aerosols and dust, and for protecting the environment: Do not breathe vapor or mist. Wear personal protective equipment. Ensure effective ventilation. Avoid contact with eyes, skin and clothing. Store in original packaging.

Advice on general occupational hygiene: Do not eat, drink or smoke while working, wash your hands with soap after working with the product.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions: Store in original packaging. Keep containers tightly closed in a dry, cool and well-ventilated area. Prevent air/oxygen entry (peroxide formation). Keep away from sources of heat and ignition. Store away from direct sunlight.

Packaging materials: No information available.

Requirements for storage areas and containers: No information available.

Storage class: No information available.

7.3 Specific end use(s): According to the technical information.

Recommendations: No information available.

Specific uses for industry: No information available.

Additional information: No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.1.1 Occupational exposure limit:

Substance	CAS No.	Country	Limit values 8h		Limit value - Short term		Remarks
			mg/m3	ppm	mg/m3	ppm	
Citric acid	77-92-9	Germany (AGS)	/	2 (1)	/	4 (1)(2)	(1) Inhalable fraction (2) 15 minutes average value
Citric acid	77-92-9	Germany (DFG)	/	2 (1)	/	4 (1)(2)	(1) Inhalable fraction and vapour (2) 15 minutes average value
Citric acid	77-92-9	Switzerland	/	2 (1)	/	4 (1)(2)	(1) Inhalable fraction (2) 15 minutes average value

8.1.2 Biological limit values:

Substance	CAS No.	Parameter	Biological limits values (BAT)	Biological sample	Sampling time
/	/	/	/	/	/

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8.1.3 DNEL:
Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts 68411-30-3 [mg/m³] inhalation systemic

8.1.4 PNEC:
Citric acid 77-92-9 PNEC 0.44 mg/l aquatic organisms freshwater short-term (single exposer)
Citric acid 77-92-9 PNEC 0.044 mg/l aquatic organisms sea water short-term (single exposer)
Citric acid 77-92-9 PNEC 1,000 mg/l aquatic organisms wastewater treatment plant (WTP) short-term (single exposer)
Citric acid 77-92-9 PNEC 34.6 mg/kg freshwater aquatic organisms sediment short-term (single exposer)
Citric acid 77-92-9 PNEC 3.46 mg/kg aquatic organisms marine sediment short-term (single exposer)
Citric acid 77-92-9 PNEC 33.1 mg/kg terrestrial organisms Soil organisms short-term (single exposer)

8.2 Exposure controls

8.2.1 Appropriate engineering controls:	No information available.
8.2.2 Individual protection measures, such as personal protective equipment:	
• General	Wear impervious work clothing. Observe normal safety precautions when handling chemicals.
• Eye/face protection	Safety glasses that adapt to the face (e.g., EN 166) and a face shield.
• Skin protection	Protective means should be selected according to the activity and possible action, e.g. protective apron, boots, protective suit (according to DIN-EN 465).
• Hand protection	Protective gloves resistant to chemicals (EN 374). Suitable materials even for long-term direct contact (recommendation: protection index 6, corresponds to the Breakthrough time according to EN 374 > 480 minutes). nitrile rubber (NBR) - layer thickness 0.4 mm Note: The data is based on own tests, data from the literature and according to the glove manufacturer's data or derived by analogy with similar substances. It should be taken into account that in practice the duration of protective gloves due to various influences (e.g., temperature) can be significantly shorter than the permeability time obtained by tests. Due to the wide range of protection types, follow the manufacturer's instructions.
• Respiratory protection	Inhalation protection when releasing vapours/aerosols. A particle filter with a medium capacity to retain solid and liquid particles (e.g., EN 143 or SIST 149, type P1 or P2 or FFP2).
• Thermal hazards	No information available.
8.2.3 Environmental exposure controls:	No information available.
Additional information:	No information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	**Value/Unit/Method**
Physical state	Liquid
Colour	Light yellow
Odour	Mild
Odor threshold limit value	No information available.
Melting point/freezing point	No information available.
Boiling point or initial boiling point and boiling range	No information available.
Flammability	No information available.
Lower/upper explosive limit	No information available.
Flash point	No information available.
Auto-ignition temperature	No information available.

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Decomposition temperature	No information available.
pH	<7 (20 °C)
Kinematic viscosity	No information available.
Solubility	No information available.
Partition coefficient n-octanol/water (log value)	No information available.
Vapor pressure	No information available.
Density and/or relative density	1,10 g/cm³ pri 20 °C
Relative density	No information available.
Relative vapor density	No information available.
Particle characteristics	No information available.
Oxidizing properties	The product is not oxidizing
9.2 Other information:	
9.2.1 Information with regard to physical hazard classes	No information available.
9.2.2 Other safety characteristics	No information available.
Additional information:	No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity There is no risk of reactivity under normal storage and handling conditions.

10.2 Chemical stability Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions There are no known specific conditions that should be avoided.

10.4 Conditions to avoid There are no known specific conditions that should be avoided.

10.5 Incompatible Materials No information available.

10.6 Hazardous decomposition products Under the prescribed conditions of storage and handling, the product does not decompose.

Additional information: No information available.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 (CLP)

Acute toxicity: The mixture is not classified.

Ingredients that may contribute to acute oral toxicity:
2-butoxyethanol, LD 50 (oral): ATE 500 mg/kg
tetrasodium ethylenediaminetetraacetate, LD 50 (oral): ATE 500 mg/kg
Alcohols, C9-11-iso-, C10-rich, ethoxylated, LD 50 (oral): ATE 500 mg/kg
Calculated estimated value for acute oral toxicity ATE (mixtures): 1515 mg/kg
The mixture is therefore classified in category 4 Acute toxicity (oral).

Ingredients that may contribute to acute dermal toxicity:
There are no suitable ingredients in the mixture. The mixture is not classified according to acute toxicity (dermal).

Ingredients that may contribute to acute inhalation toxicity:
2-butoxyethanol, LC 50 (inhalation): ATE 3 mg/l/4h
Calculated estimated value for acute inhalation toxicity ATE (mixture): 37 mg/l/4h
The mixture is therefore not classified as acutely toxic (inhalation).

Skin corrosion/irritation: Result: the mixture is classified in category 1B.

Serious eye damage/irritation: Substances classified as corrosive substances of category 1B also cause severe eye damage. The mixture is classified in category 1.

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Respiratory or skin sensitisation:	The mixture is not classified.
Germ cell mutagenicity:	The mixture is not classified.
Carcinogenicity:	The mixture is not classified.
Reproductive toxicity:	The mixture is not classified.
STOT – single exposure:	The mixture is not classified.

Components that may contribute to specific target organ toxicity - single exposure:
Respiratory tract irritation:

Important substances:
disodium metasilicate, Substance Classification: Category 3
The mixture is not classified as specific target organ toxicity - single exposure: respiratory tract irritation.
Components that may contribute to specific target organ toxicity - single exposure:
Narcotic effects:

Important substances:
propan-2-ol, Substance classification: Category 3
The mixture is not classified in Specific target organ toxicity - single exposure: Narcotic effects.

STOT - repeated exposure:	The mixture is not classified.
Aspiration hazard:	The mixture is not classified.
Information on likely routes of exposure:	No information available.
Symptoms related to the physical, Chemical and toxicological characteristics:	No information available.
Delayed and immediate effects as Well as chronic effects from short and long-term exposure:	No information available.
Interactive effects	No information available.
Absence of specific data:	No information available.
Mixture versus substance information:	No information available.

11.2 Information on other hazards

Endocrine disruptor properties:	No information available.
Other information:	No information available.

SECTION 12: Ecological information

12.1 Toxicity

Not classified as hazardous to the aquatic environment.
Toxicity of the components of the mixture to aquatic organisms (acute).

Citric acid CAS: 77-92-9, LC50- 440 mg/l, fish -48 h
Biodegradation - No data available.
Oxirane, 2-methyl-, polymer with oxirane, mono(2-propylheptyl) ether CAS: 166736-08-9
Acutely harmful to aquatic organisms.
Toxicity to fish:
LC50 (96 h) > 10 - 100 mg/l, Brachydanio rerio (OECD Directive 203)
Aquatic invertebrates:
EC50 (48 h) > 10 - 100 mg/l, Daphnia magna
Aquatic plants:
EC50 (72 h) > 10 - 100 mg/l, Scenedesmus subspicatus
Microorganisms / effect on activated sludge:

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EC50 (0.5 h), bacteria
not specified
Chronic toxicity to fish:
No information.
Chronic toxicity to aquatic invertebrates: No data available.
Assessment of soil toxicity: No data on soil toxicity.

CAS: 68411-30-3-benzenesulfonic acid, C10-13-alkyl derivatives, sodium salts
Toxicity to fish: LC50 - Lepomis macrochirus - 1.67 mg/L - 96 h. Toxicity to fleas and other aquatic vertebrates: EC50 - Daphnia magna - 2.9 mg/L - 48 h. Algae toxicity: EC50 - Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) - 29 mg/L - 96 h. Toxicity to microorganisms: no data

12.2 Persistence and degradability

Citric acid: CAS-77-92-9 biotic/abiotic, 98% 2 days
Oxirane, 2-methyl-, polymer with oxirane, mono(2-propylheptyl) ether CAS: 166736-08-9
Exclusion information:
>= 90% bismuth - active substance (mod. OECD 303A)
Analogy: Evaluation based on chemically similar products.

12.3 Bioaccumulative potential

Citric acid CAS-77-92-9, logKOW, -1.64
Oxirane, 2-methyl-, polymer with oxirane, mono(2-propylheptyl) ether CAS: 166736-08-9 Assessment of potential bioaccumulation:
An increase in the concentration in organisms is not expected.

12.4 Mobility in soil

Citric acid CAS-77-92-9- No data available.
Oxirane, 2-methyl-, polymer with oxirane, mono(2-propylheptyl) ether CAS: 166736-08-9 Assessment of traffic in different segments of the environment:
- Volatility: the substance does not evaporate from the water surface into the atmosphere.
- Absorption in the soil: Possible binding to the solid phase in the soil.

12.5 Results of PBT and vPvB assessment

Citric acid CAS-77-92-9- Does not meet the criteria for identification as PBT and vPvB. Oxirane, 2-methyl-, polymer with oxirane, mono(2-propylheptyl) ether CAS: 166736-08-9: Does not meet the criteria for identification as PBT and vPvB.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

CAS: 166736-08-9-Oxirane, 2-methyl-, polymer with oxirane, mono(2-propylheptyl) ether

The product does not contain substances listed in Directive (EU) 1005/2009 as substances that damage the ozone layer. Other instructions regarding distribution and residues: during processing or follow local regulations and rules for waste water disposal in biological treatment plants. Other ecotoxicological information: The product has not been tested. Ecotoxicology statements are derived from products of similar structure or composition

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment of mixture:

When removing - do not mix with municipal waste. You must hand over the used product, waste or unused parts of the product to an authorized person who collects and handles waste in accordance with national regulations and legislation on waste. The owner or other owner of the waste, or the authorized operator, is obliged to classify the waste in the prescribed manner, carry out testing of hazardous waste and waste that may be dangerous due to its origin, composition and properties. It is forbidden to mix it with other types of waste that pose a greater risk to the

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environment.

EWC code:	No information available.
Waste treatment of packaging:	No information available.
EWC code:	15 01 10* Packaging containing residues of dangerous substances or contaminated with dangerous substances
Additional information:	No information available.

SECTION 14: Transport information

14.1 UN number and ID number: 1760

14.2 UN proper shipping name: ADR/RID - CORROSIVE LIQUID IMDG - CORROSIVE LIQUID
14.3 Transport hazard class(es):
ADR/RID 8
IMDG 8
IATA 8
14.4 Packing group:
ADR/RID III
IMDG III
IATA III
14.5 Environmental hazards: According to traffic regulations, it is not classified as dangerous.
14.6 Special precautions for user: No
14.7 Maritime transport in bulk according to IMO instruments: Not transported in bulk.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 on registration, evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency and amending the Directive 1999/45 / EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 and Council Directives 76/769 / EEC and Commission Directives 91/155 / EEC, 93/67 / EEC, 93/105 / EC and 2000/21 / EC (as amended by Commission Regulation (EU) No. 830/2015) - with amendments
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548 / EEC and 1999/45 / EC and amending Regulation (EC) No 1234/2007.

15.2 Chemical safety assessment
No information available.

SECTION 16: Other information

Changes to the safety data sheet: No information available.

Abbreviations:
CLP - Classification, Labelling and Packaging
DNEL – Derived No-Effect Level
EWC code - six-digit code used to identify waste as listed in the European Waste Catalogue
PNEC - Predicted concentration without effect
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals
STOT – Specific Target Organ Toxicity
UFI - the 16-character unique formula identifier (UFI) code

Resources for creating a safety data sheet: AS-METALPAST - SI (Revision date: 10.10.2023)

List of relevant hazard statements and/or precautionary statements under sections 2 to 15:

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H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.

Training for workers: No information available.

Recommended usage restrictions: No information available.

The information in the safety data sheet is based on our knowledge and available information. The safety data sheet indicates the product and the safety measures prescribed for it. The safety data sheet does not guarantee the quality of the product. A legal or natural person who places a chemical on the market is not responsible for any improper use, only this and the resulting consequences.

- End of safety data sheet -

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Trade name: AS-PCB
Product code: No information available.
UFI: 6KPK-U7E2-E009-43SS

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Identified uses: Concentrated cleaner, specially developed for ultrasonic cleaning - washing PCB printed circuits. In accordance with the special purpose, it does not reduce the propagation of ultrasonic waves and ensures the maximum efficiency of ultrasonic washing.
Uses advised against: Do not use for purposes other than those recommended.

1.3 Details of the supplier of the safety data sheet:

Manufacturer:
ASONIC d.o.o.
Tržaška cesta 134
1000 Ljubljana, Slovenia
Phone: + 386 41 566618
e-mail: order@asonic.si

1.4 Emergency telephone number:

Belgium: 070 245 245
Bulgaria: +359 2 9154 233
Croatia: +3851 2348 342 (24/7 in Croatian and English).
Czech Republic: +420 224 919 293, +420 224 915 402
Denmark: +45 8212 1212
Estonia: 112 (National emergency telephone number (Häirekeskuse number)); 16662 (nationally) and +372) 7943 794 (calling from abroad)
Finland: 0800 147 111, 09 471 977 (Open 24 hours a day)
France: + 33 (0)1 45 42 59 59
Greece: (0030) 2107793777
Hungary: +36-80-201-199 (0-24h, free of charge)
Ireland: 01 809 2566
Italy (CAP, Phone Number, City): 00165 06 68593726 (Roma); 71122 800183459 (Foggia); 80131 081-5453333 (Napoli); 161 06-49978000 (Roma); 168 06-3054343 (Roma); 50134 055-7947819 (Firenze); 27100 0382-24444 (Pavia); 20162 02-66101029 (Milano); 24127 800883300 (Bergamo); 37126 800011858 (Verona).
Latvia: Valsts ugunsdzēsības un glābšanas dienests, phone number: 112. Toksikoloģijas un sepses klīnikas Saindēšanās un zāļu informācijas centrs, Hipokrāta 2, Rīga, Latvija, LV-1038, phone number +371 67042473. Service is available 24 hours.
Lithuania: +370 (85) 2362052
Luxembourg: (+352) 8002 5500 (24/7, experts answer in French, Dutch and English)
The Netherlands: +31 (0)88 755 8000
Norway: 22 59 13 00 (Open 24 hours a day, 7 days a week.)
Portugal: +351 800 250 250
Romania: +40213183606
Slovakia: +421 2 5477 4166
Slovenia: 112
Spain: + 34 91 562 04 20 (available 24h/365 days)
Sweden: 112

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture:

2.1.1 Classification according to Regulation (EC) No 1272/2008 (CLP)

Flam. Liq. 2, H225 (Flammable liquids, Category 2, H225)
Eye Irrit. 2, H319 (Serious eye damage/Eye irritation, Category 2, H319)
STOT SE 3, H336 (Specific Target Organ Toxicity - Single exposure: Narcotic effects, Category 3, H336)

2.2 Label elements:

2.2.1 Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word(s): Danger

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Hazard pictogram(s):

Hazard statement(s):
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Precautionary statement(s):
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P235 Keep cool.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilation/lighting/... equipment.
P242: Use non-sparking tools.
P243 Take action to prevent static discharges.
P261 Avoid breathing dust/smoke/gas/mist/vapour/aerosol.
P264 Wash hands thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call POISON CENTER/doctor/... if you feel unwell.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P370 + P378 In case of fire: Use sand, carbon dioxide or extinguishing powder to extinguish.
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/container to according to the regulation.

Contains:
propan-2-ol; 2-Butoxyethanol; 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts

2.3 Other hazards:
No information available.

SECTION 3: Composition/information on ingredients

3.1 Mixture

Description of the substance/mixture: No information available.

Substance	EC No.	CAS No.	Index No.	CLP-classification	Concentration % (w/w)	REACH Reg. No.
propan-2-ol	200-661-7	67-63-0	603-117-00-0	Flam. Liq. 2,H225 Eye Irrit. 2, H319 STOT SE 3, H336	5 - 20	/
2-Butoxyethanol	203-905-0	111-76-2	603-014-00-0	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Acute Tox. 3, H331	5 - 7	/
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	263-058-8	61789-40-0	/	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Acute 1, H400	<1	/
Oxirane, 2-methyl-, polymer with oxirane, mono(2-propylheptyl) ether	605-450-7	166736-08-9	/	Acute Tox. 4, H302 Eye Dam. 1, H318	1-4	/

More information: Please see section 16 for the full text of H- / EUH-phrases.

SECTION 4: First aid measures

4.1 Description of first aid measures

General: No information available.
Inhalation: In case of inhalation of the product, take the exposed person to fresh air. If coughing and/or other breathing problems occur - seek medical help immediately.
Skin contact**:** Wash skin with soap and water. If clothes and shoes are dirty, they should be taken off. If skin irritation occurs, seek medical attention
Eye contact: If contact occurs, rinse with water for at least 15 minutes, keeping the eyes open. If possible, remove contact lenses. In case of irritation, seek medical attention.
Ingestion: If the person feels unwell, call a POISON CENTER or doctor. Do not induce vomiting.
Protection of the first aider: No information available.

4.2 Most important symptoms and effects, both acute and delayed

Eyes: redness, pain, blurred vision
Skin: redness, pain, burns, blisters
Ingestion: May be harmful if swallowed. If the substance enters the lungs, signs and symptoms may include coughing, choking, wheezing, difficulty breathing, chest tightness, shortness of breath, and/or fever.
Inhalation: Harmful by inhalation.

4.3 Indication of any immediate medical attention and special treatment needed

Treat according to symptoms. Show the safety data sheet or product label to the medical staff.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Carbon dioxide (CO_2), water spray, alcohol-resistant foam, dry powder.
Unsuitable extinguishing media: Water jet

5.2 Special hazards arising from the substance or mixture: In case of fire, the following can be released: carbon dioxide (CO_2); Carbon monoxide (CO), flammable gases/vapours. The product is flammable! There is no risk of explosion. Combustion products: Carbon monoxide (CO), carbon dioxide (CO_2).

5.3 Advice for firefighters: In case of fire: Wear self-contained breathing apparatus and protective clothing.

Additional information: No information available.

SECTION 6: Accidental release measures

6.1 Personal safety measures, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:	Wear protective clothing. See section 8 for more information. Notify emergency personnel. Restrict access to the endangered area until the consequences of the accident are eliminated. Eliminate potential sources of ignition. Remove spilled product. Ensure adequate ventilation. Notify local authorities in accordance with applicable regulations. Avoid contact with skin, eyes and clothing. Prevent product from entering surface water, drains, groundwater or waterways.
6.1.2 For emergency responders:	No information available.
6.2 Environmental precautions	Do not allow to enter surface waters or sewers.
6.3 Methods and materials for containment and cleaning up	
6.3.1 Spill Containment:	Stop leaks and runoff into the environment. Remove sources of ignition (open flame, sparks...).
6.3.2 Spill clean-up:	Collect the spilled agent mechanically with an adsorption material (sawdust, sand, earth) and remove it to a marked container for further disposal in accordance with the applicable waste management regulations. Comply with applicable laws and regulations.
6.3.3 Other information:	No information available.
6.4 References to other sections	Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal: see section 13.
Additional information:	No information available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations for preventing fire, the formation of aerosols and dust, and for protecting the environment:	Do not breathe vapor or mist. Wear personal protective equipment. Ensure effective ventilation. Avoid contact with eyes, skin and clothing. Store in original packaging.
Advice on general occupational hygiene:	Do not eat, drink or smoke while working, wash your hands with soap after working with the product.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:	Store in original packaging. Keep containers tightly closed in a dry, cool and well-ventilated area. Prevent air/oxygen entry (peroxide formation). Keep away from sources of heat and ignition. Store away from direct sunlight.
Packaging materials:	No information available.
Requirements for storage areas and containers:	No information available.
Storage class:	No information available.
7.3 Specific end use(s)	According to the technical information.
Recommendations:	No information available.
Specific uses for industry:	No information available.
Additional information:	No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.1.1 Occupational exposure limit:

Substance	CAS No.	Country	Limit values 8h		Limit value - Short term		Remarks
			mg/m3	ppm	mg/m3	ppm	
Propan-2-ol	67-63-0	Austria	200	500	800	2000	/
Propan-2-ol	67-63-0	Belgium	200	500	400 (1)	1000 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Denmark	200	490	400	980	/
Propan-2-ol	67-63-0	Finland	200	500	250 (1)	620 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	France	/	/	400	980	/
Propan-2-ol	67-63-0	Germany (AGS)	200	500	400 (1)	1000 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Germany (DFG)	1000 (1)	200	500	400 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Hungary	/	500 (1)	/	1000 (1)(2)	(1) Skin (2) 15 minutes average value
Propan-2-ol	67-63-0	Ireland	200	/	/	400 (1)	(1) 15 minutes reference period
Propan-2-ol	67-63-0	Latvia	350	/	/	600 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Norway	100	245	/	/	/
Propan-2-ol	67-63-0	Poland	/	900 (1)	/	1200 (1)(2)	(1) Skin (2) 15 minutes average value
Propan-2-ol	67-63-0	Romania	81	200	203 (1)	500 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Spain	200	500	400	1000	/
Propan-2-ol	67-63-0	Sweden	150	350	250 (1)	600 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Switzerland	200	500	400	1000	/
Propan-2-ol	67-63-0	United Kingdom	400	999	500 (1)	1250 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	Austria	20	98	40	200	/
2-Butoxyethanol	111-76-2	Belgium	20	98	50 (1)	246 (1)	Additional indication "D" means that the absorption of the agent through the skin, mucous membranes or eyes is an important part of the total exposure. It can be the result of both direct contact and its presence in the air. (1) 15 minutes average value
2-Butoxyethanol	111-76-2	Denmark	20 (1)	98 (1)	40 (1)(2)	196 (1)(2)	1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	European Union	**20**	**98**	**50 (1)**	**246 (1)**	(1) 15 minutes average value Bold-type: Indicative Occupational Exposure Limit Value (IOELV)
2-Butoxyethanol	111-76-2	Finland	20	98	50 (1)	250 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	France	**10**	**49**	**50 (1)**	**246 (1)**	Bold type: Restrictive statutory limit values Skin (1) 15 minutes average value
2-Butoxyethanol	111-76-2	Germany (AGS)	10 (1)	49 (1)	20 (1)(2)	98 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Germany (DFG)	10 (1)(2)	49 (2)	20 (1)(2)(3)	98 (2)(3)	(1) MAK value applies for the sum of the concentrations of 2-Butoxyethanol and 2-Butoxyethylacetate in air (2) Skin (3) 15 minutes average value
2-Butoxyethanol	111-76-2	Hungary	/	98 (1)	/	246 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Ireland	20	98	50 (1)	246 (1)	(1) 15 minutes reference period
2-Butoxyethanol	111-76-2	Italy	20 (1)	98 (1)	50 (1)(2)	246 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Latvia	20	98	50 (1)	246 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	Norway	10 (1)	50 (1)			(1) Skin
2-Butoxyethanol	111-76-2	Poland	/	98 (1)	/	200 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Romania	20	98	50 (1)	246 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	Spain	20 (1)	98 (1)	50 (1)(2)	245 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Sweden	10	50	50 (1)	246 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	10	49	20	98	10	/
2-Butoxyethanol	111-76-2	The Netherlands	20,4 (1)	100 (1)	50 (1)(2)	246 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	United Kingdom	25 (1)	123 (1)	50 (1)(2)	246 (1)(2)	(1) Skin (2) 15 minutes average value

8.1.2 Biological limit values:

Substance	CAS No.	Parameter	Biological limits values (BAT)	Biological sample	Sampling time
/	/	/	/	/	/

8.1.3 DNEL/PNEC:

propan-2-ol 67-63-0 DNEL 500 [mg/m³] inhalation systemic
2-butoxyethanol 111-76-2 98 [mg/m³] inhalation systemic

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1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts 61789-40-0
DNEL 8,22 [mg/m³] inhalation systemic

Workers / Long-term systemic effects 98 mg/m3 Inhalation
Workers / Acute systemic effects 1091 mg/m3 Inhalation
Workers / Acute local effects 246 mg/m3 Inhalation
Workers / Long-term systemic effects 125 mg/kg body weight Through the skin
Workers / Acute systemic effects 89 mg/kg body weight Through the skin
Users/ Long-term systemic effects 59 mg/m3 by inhalation
Users/ Acute systemic effects 426 mg/m3 Inhalation
Users / Long-term systemic effects 75 mg/kg body weight Through the skin
Users / Acute systemic effects 89 mg/kg body weight Through the skin
Users / long-term systemic effects 6.3 mg/kg body weight when ingested
Users / Acute systemic effects 26.7 mg/kg body weight when ingested

Environment:

Environment	Value
Fresh water	8,8 mg/l (assessment factor – 10)
Marine water	0,88 mg/l (assessment factor – 100)
Waste water treatment plant	463 mg/l
Fresh water sediment	34,6 mg/l
Marine water sediment	3,46 mg/l
Soil	2,33 mg/kg dry material

8.2 Exposure controls

8.2.1 Appropriate engineering controls: No information available.

8.2.2 Individual protection measures, such as personal protective equipment:

- General: Personal protective equipment must comply with EN standards: respirator EN 136, 140, 149; protective glasses EN 166; protective clothing: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, protective shoes EN-ISO 20345.
  General instructions for personal protection: avoid contact with skin, eyes and clothing. Remove contaminated clothing immediately and wash before reuse. Make sure eyewash stations and safety showers are close to where the product is to be used.
- Eye/face protection: Protective glasses.
- Skin protection: Protective work clothes.
  Gloves material: nitrile rubber
  Breakthrough time: > 480 min
  Glove thickness: 0.4 mm Camatril® 730
- Hand protection: Gloves should be inspected before use. Change gloves regularly. Note: Specifications are based on information and tests of similar substances by analogy. Due to different conditions (e.g., temperature or other loads), it should be taken into account that the use of chemical protective gloves in practice can be much shorter than the breakthrough time determined in accordance with EN 374. Because the actual conditions of practical use often deviate from the standardized conditions according to EN 374, the glove manufacturer recommends the use of gloves to protect against chemicals in practice for a maximum of 50% of the recommended breakthrough time. Due to the wide range of types of gloves, it is necessary to follow the manufacturer's instructions for use.
- Respiratory protection: If vapors are generated, use a respirator with an approved filter.
- Thermal hazards: No information available.

8.2.3 Environmental exposure controls: Handle in accordance with local environmental regulations and good industrial practice.

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Additional information: No information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	**Value/Unit/Method**
Physical state	Transparent liquid
Colour	Blue
Odour	Mild
Odor threshold limit value	No information available.
Melting point/freezing point	No information available.
Boiling point or initial boiling point and boiling range	No information available.
Flammability	No information available.
Lower/upper explosive limit	No information available.
Flash point	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
pH	~ 7
Kinematic viscosity	No information available.
Solubility	No information available.
Partition coefficient n-octanol/water (log value)	No information available.
Vapor pressure	No information available.
Density and/or relative density	0,9 g/cm³ pri 20 °C
Relative density	No information available.
Relative vapor density	No information available.
Particle characteristics	No information available.
Oxidizing properties	Product is not oxidizing
9.2 Other information:	
9.2.1 Information with regard to physical hazard classes	No information available.
9.2.2 Other safety characteristics	No information available.
Additional information:	No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity	There is no risk of reactivity under normal storage and handling conditions.
10.2 Chemical stability	Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions	There are no known specific conditions that should be avoided.
10.4 Conditions to avoid	There are no known specific conditions that should be avoided.
10.5 Incompatible Materials	No information available.
10.6 Hazardous decomposition products	Under the prescribed conditions of storage and handling, the product does not decompose.
Additional information:	No information available.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 (CLP)

Acute toxicity: The mixture is not classified.

Ingredients that may contribute to acute oral toxicity:
2-butoxyethanol, LD 50 (oral): ATE 500 mg/kg
Oxirane, 2-methyl-, polymer with oxirane, mono(2-propylheptyl) ether, LD 50 (oral): ATE 500 mg/kg
Calculate the estimated value for acute oral toxicity ATE (mixture): 4545 mg/kg
The mixture is therefore not classified according to acute toxicity (oral).

Ingredients that may contribute to acute dermal toxicity:
There are no suitable ingredients in the mixture.
The mixture is not classified according to acute toxicity (dermal).

Ingredients that may contribute to acute inhalation toxicity:
2-butoxyethanol, LC 50 (inhalation): ATE 3 mg/l/4h
Calculate the estimated value for acute inhalation toxicity ATE (mixture): 42.857 mg/l/4h
The mixture is therefore not classified as acutely toxic (inhalation).

Skin corrosion/irritation: The mixture is not classified.

Serious eye damage/irritation: The mixture is classified in category 2.

Respiratory or skin sensitisation: The mixture is not classified.

Germ cell mutagenicity: The mixture is not classified.

Carcinogenicity: The mixture is not classified.

Reproductive toxicity: The mixture is not classified.

STOT – single exposure: The mixture is not classified as specific target organ toxicity - single exposure.

Components that may contribute to specific target organ toxicity - single exposure:
Respiratory tract irritation:
There are no suitable ingredients in the mixture.

The mixture is not classified as specific target organ toxicity - single exposure: respiratory tract irritation.

Components that may contribute to specific target organ toxicity - single exposure:
Narcotic effects:

Important substances:
propan-2-ol, Substance classification: Category 3
Result: the mixture is classified in category 3.

STOT - repeated exposure: The mixture is not classified.

Aspiration hazard: The mixture is not classified.

Information on likely routes of exposure: No information available.

Symptoms related to the physical, Chemical and toxicological characteristics: No information available.

Delayed and immediate effects as Well as chronic effects from short and long-term exposure: No information available.

Interactive effects: No information available.

Absence of specific data: No information available.

Mixture versus substance information: No information available.

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11.2 Information on other hazards

Endocrine disruptor properties: No information available.
Other information: No information available.

SECTION 12: Ecological information

12.1 Toxicity

The ecotoxicological assessment is based on data on the toxicity of the ingredients that make up the product.

propan-2-ol, CAS: 67-63-0
Acute EC50 10100 Aquatic invertebrates - 48h mg/l fresh water Daphnia magna
Acute LC50 1400000 Aquatic invertebrates - 48h µg/l, sea water Crangon crangon
Acute LC50 4200 Fish - Rasbora 96h mg/l freshwater heteromorpha

2-butoxyethanol, CAS: 111-76-2
Acute LC50 1474 mg/l Fish - Oncorhynchus96h / OECD mykiss Test instructions 203
Chronic NOEC > 100 mg/l Fish - Danio rerio21d / OECD Test Guideline 204
Acute EC50 911 mg/l Aquatic plants - 72h / OECD Pseudokirchneriella test instructions subcapitata 201
Acute EC50 1800 mg/l Aquatic invertebrates - 48h / OECD Daphnia magna Test instructions 202
Chronic NOEC 100 mg/l Aquatic invertebrates - 21d / OECD Daphnia magna Test instructions 211

Oxirane, 2-methyl-, polymer with oxirane, mono(2-propylheptyl) ether, CAS: 166736-08-9
Acute LC50 > 10 - Fish - Brachydanio96h / OECD 100 mg/l rerio Test instructions 203
Acute EC50 > 10 - Aquatic invertebrates - 48h 100 mg/l Daphnia magna
Acute EC50 > 10 - Aquatic plants - 72h 100 mg/l Scenedesmus subspicatus

Assessment of water toxicity: acutely harmful to aquatic organisms.

12.2 Persistence and degradability

The surfactants contained in this detergent meet the criterion of complete aerobic biodegradability given in accordance with Regulation 648/2004/EC.
Biodegradability of the component included in the composition of the product:
2-butoxyethanol, CAS: 111-76-2

Biodegradation: 90.4% Exposure time: 28 days
Result: Easily biodegradable. Method: OECD Test Guideline 301B

Oxirane, 2-methyl-, polymer with oxirane, mono(2-propylheptyl) ether, CAS: 166736-08-9
Exclusion information:
>= 90% bismuth - active substance (mod. OECD 303A) Analogy: assessment based on chemically similar products.

> 60% formation of theoretical CO2 value (28 d) (OECD 301B; ISO 9439; 92/69/EWG, C.4-C) Easily biodegradable.

12.3 Bioaccumulative potential

Bioaccumulative potential of the component included in the product composition: 2-propanol, CAS: 67-63-0
LogPow 0.05 - low bioaccumulation potential

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

Does not meet the criteria for identification as PBT and vPvB.

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12.6 Endocrine disrupting properties	No information available.
12.7 Other adverse effects	No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment of mixture:	When removing - do not mix with municipal waste. You must hand over the used product, waste or unused parts of the product to an authorized person who collects and handles waste in accordance with national regulations and legislation on waste. The owner or other owner of the waste, or the authorized operator, is obliged to classify the waste in the prescribed manner, carry out testing of hazardous waste and waste that may be dangerous due to its origin, composition and properties. It is forbidden to mix it with other types of waste that pose a greater risk to the environment.
EWC code:	No information available.
Waste treatment of packaging:	No information available.
EWC code:	15 01 10* Packaging containing residues of dangerous substances or contaminated with dangerous substances
Additional information:	No information available.

SECTION 14: Transport information

14.1 UN number and ID number: 1219

14.2 UN proper shipping name: FLAMMABLE LIQUID - A mixture of isopropyl alcohol and other ingredients
14.3 Transport hazard class(es):
ADR/RID 3
IMDG 3
IATA 3
14.4 Packing group:
ADR/RID III
IMDG III
IATA III
14.5 Environmental hazards:
ADR: Not classified as dangerous according to traffic regulations.
IMDG: Not classified as dangerous according to transport regulations.
IATA: Not classified as dangerous according to traffic regulations.
14.6 Special precautions for user: The product is not subject to transport regulations.
14.7 Maritime transport in bulk according to IMO instruments: Not transported in bulk.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 on registration, evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency and amending the Directive 1999/45 / EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 and Council Directives 76/769 / EEC and Commission Directives 91/155 / EEC, 93/67 / EEC, 93/105 / EC and 2000/21 / EC (as amended by Commission Regulation (EU) No. 830/2015) - with amendments
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548 / EEC and 1999/45 / EC

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and amending Regulation (EC) No 1234/2007.

15.2 Chemical safety assessment
No information available.

SECTION 16: Other information

Changes to the safety data sheet: No information available.

Abbreviations:
CLP - Classification, Labelling and Packaging
DNEL – Derived No-Effect Level
EWC code - six-digit code used to identify waste as listed in the European Waste Catalogue
PNEC - Predicted concentration without effect
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals
STOT – Specific Target Organ Toxicity
UFI - the 16-character unique formula identifier (UFI) code

Resources for creating a safety data sheet: AS-PCB - SI (Revision date: 10.10.2023)

List of relevant hazard statements and/or precautionary statements under sections 2 to 15:
H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H336 May cause drowsiness or dizziness.
H400 Very toxic to aquatic life.

Training for workers: No information available.

Recommended usage restrictions: No information available.

The information in the safety data sheet is based on our knowledge and available information. The safety data sheet indicates the product and the safety measures prescribed for it. The safety data sheet does not guarantee the quality of the product. A legal or natural person who places a chemical on the market is not responsible for any improper use, only this and the resulting consequences.

- End of safety data sheet -

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Trade name: AS-JEW
Product code: No information available.
UFI: JAPK-A7AV-G00T-531K

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Identified uses: Concentrated agent for degreasing internal combustion engine parts with ultrasonic cleaning - washing in ultrasonic baths and bathrooms.
Uses advised against: Do not use for purposes other than those recommended.

1.3 Details of the supplier of the safety data sheet:

Manufacturer:
ASONIC d.o.o.
Tržaška cesta 134
1000 Ljubljana, Slovenia
Phone: + 386 41 566618
e-mail: order@asonic.si

1.4 Emergency telephone number:

Belgium: 070 245 245
Bulgaria: +359 2 9154 233
Croatia: +3851 2348 342 (24/7 in Croatian and English).
Czech Republic: +420 224 919 293, +420 224 915 402
Denmark: +45 8212 1212
Estonia: 112 (National emergency telephone number (Häirekeskuse number)); 16662 (nationally) and +372) 7943 794 (calling from abroad)
Finland: 0800 147 111, 09 471 977 (Open 24 hours a day)
France: + 33 (0)1 45 42 59 59
Greece: (0030) 2107793777
Hungary: +36-80-201-199 (0-24h, free of charge)
Ireland: 01 809 2566
Italy (CAP, Phone Number, City): 00165 06 68593726 (Roma); 71122 800183459 (Foggia); 80131 081-5453333 (Napoli); 161 06-49978000 (Roma); 168 06-3054343 (Roma); 50134 055-7947819 (Firenze); 27100 0382-24444 (Pavia); 20162 02-66101029 (Milano); 24127 800883300 (Bergamo); 37126 800011858 (Verona).
Latvia: Valsts ugunsdzēsības un glābšanas dienests, phone number: 112. Toksikoloģijas un sepses klīnikas Saindēšanās un zāļu informācijas centrs, Hipokrāta 2, Rīga, Latvija, LV-1038, phone number +371 67042473. Service is available 24 hours.
Lithuania: +370 (85) 2362052
Luxembourg: (+352) 8002 5500 (24/7, experts answer in French, Dutch and English)
The Netherlands: +31 (0)88 755 8000
Norway: 22 59 13 00 (Open 24 hours a day, 7 days a week.)
Portugal: +351 800 250 250
Romania: +40213183606
Slovakia: +421 2 5477 4166
Slovenia: 112
Spain: + 34 91 562 04 20 (available 24h/365 days)
Sweden: 112

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture:

2.1.1 Classification according to Regulation (EC) No 1272/2008 (CLP)

Flam. Liq. 2, H225 (Flammable liquids, Category 2, H225)
Acute Tox. 4, H302 (Acute toxicity (oral), Category 4, H302)
Skin Corr. 1B, H314 (Skin corrosion/irritation, Category 1B, H314)
Eye Dam. 1, H318 (Serious eye damage/Eye irritation, Category 1, H318)

2.2 Label elements:

2.2.1 Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word(s): Danger

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Hazard pictogram(s):

Hazard statement(s):
H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.

Precautionary statement(s):
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P235 Keep cool.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilation/lighting/... equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor/... if you feel unwell.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor/...
P321 Specific treatment (see on this label).
P330 Rinse mouth.
P363 Wash contaminated clothing before reuse.
P370 + P378 In case of fire: Use carbon dioxide (CO2), water spray, alcohol-resistant foam, dry powder to extinguish.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/container to according to regulations.

Contains:
propan-2-ol; tetrasodium ethylene diamine tetraacetate; 2-butoxyethanol; disodium metasilicate; Oxirane, 2-methyl-, polymer with oxirane, mono(2-propylheptyl) ether

2.3 Other hazards:
The mixture does not meet the criteria for classification as PBT and vPvB.

SECTION 3: Composition/information on ingredients

3.1 Mixture

Description of the substance/mixture: No information available.

Substance	EC No.	CAS No.	Index No.	CLP-classification	Concentration % (w/w)	REACH Reg. No.
tetrasodium ethylene diamine tetraacetate	200-573-9	64-02-8	607-428-00-2	Acute Tox. 4, H302 Eye Dam. 1, H318	5 - < 10	/
disodium metasilicate	229-912-9	6834-92-0	014-010-00-8	Skin Corr. 1B, H314 STOT SE 3, H335	2 - 12	/
propan-2-ol	200-661-7	67-63-0	603-117-00-0	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	2 - 12	/
2-butoxyethanol	203-905-0	111-76-2	603-014-00-0	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Acute Tox. 3, H331	1 - 5	/
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	263-058-8	61789-40-0	/	Skin Irrit. 2, H315 Eye Irrit. 2, H319	1 - 5	/
Oxirane, 2-methyl-, polymer with oxirane, mono(2-propylheptyl) ether	605-450-7	166736-08-9	/	Acute Tox. 4, H302 Eye Dam. 1, H318	5-15	/

More information: Please see section 16 for the full text of H- / EUH-phrases.

SECTION 4: First aid measures

4.1 Description of first aid measures

General: No information available.
Inhalation: In case of inhalation of product/vapours, remove exposed person to fresh air. If coughing and/or other breathing problems occur - seek medical help immediately.
Skin contact**:** Wash skin with soap and water. If clothes and shoes are dirty, they should be taken off. If skin irritation occurs, seek medical attention.
Eye contact: If contact occurs, flush eyes with water for at least 15 minutes, keeping eyes open. Contact lenses, if they exist and can be done, remove them. In case of irritation, seek medical attention.
Ingestion: If the person feels unwell, call a POISON CENTER or doctor. Do not induce vomiting.
Protection of the first aider: No information available.

4.2 Most important symptoms and effects, both acute and delayed

Eyes: redness, pain, blurred vision
Skin: redness, pain, burns, blisters
Ingestion: may be harmful if swallowed. If the substance enters the lungs, signs and symptoms may include coughing, choking, wheezing, difficulty breathing, chest tightness, shortness of breath, and/or fever.
Inhalation: harmful by inhalation.

4.3 Indication of any immediate medical attention and special treatment needed

Treat according to symptoms. Show the safety data sheet or product label to the medical staff.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Carbon dioxide (CO_2), water spray, alcohol-resistant foam, dry powder.
Unsuitable extinguishing media: Water jet.

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5.2 Special hazards arising from the substance or mixture	In case of fire, the following can be released: carbon dioxide (CO2); Carbon monoxide (CO), Flammable gases/vapours. It is not flammable. There is no risk of explosion. Combustion products: Carbon monoxide (CO), carbon dioxide (CO2).
5.3 Advice for firefighters	In case of fire: Wear self-contained breathing apparatus and protective suit.
Additional information:	No information available.

SECTION 6: Accidental release measures

6.1 Personal safety measures, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:	Wear protective clothing. For more information, see section 8. Notify emergency personnel. Restrict access to the endangered area until the consequences of the accident are eliminated. Eliminate potential sources of ignition. Remove spilled product. Ensure adequate ventilation. Notify local authorities in accordance with applicable regulations. Avoid contact with skin, eyes and clothing. Prevent the product from entering surface water, drains, groundwater or waterways.
6.1.2 For emergency responders:	No information available.
6.2 Environmental precautions	Do not allow to enter surface waters or sewers.
6.3 Methods and materials for containment and cleaning up	
6.3.1 Spill Containment:	Stop leaks and runoff into the environment. Remove sources of ignition (open flame, sparks...).
6.3.2 Spill clean-up:	Collect the spilled agent mechanically with an adsorption material (sawdust, sand, earth) and remove it to a marked container for further disposal in accordance with the applicable waste management regulations. Comply with applicable laws and regulations.
6.3.3 Other information:	No information available.
6.4 References to other sections	Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal: see section 13.
Additional information:	No information available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations for preventing fire, the formation of aerosols and dust, and for protecting the environment:	Do not breathe vapor or mist. Wear personal protective equipment. Ensure effective ventilation. Avoid contact with eyes, skin and clothing. Store in original packaging.
Advice on general occupational hygiene:	Do not eat, drink or smoke while working, wash your hands with soap after working with the product.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:	Store in original packaging. Keep containers tightly closed in a dry, cool and well-ventilated area. Prevent air/oxygen entry (peroxide formation). Keep away from sources of heat and ignition. Store away from direct sunlight.
Packaging materials:	No information available.
Requirements for storage areas and containers:	No information available.
Storage class:	No information available.

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7.3 Specific end use(s) According to the technical information.
Recommendations: No information available.
Specific uses for industry: No information available.

Additional information: No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.1.1 Occupational exposure limit:

Substance	CAS No.	Country	Limit values 8h		Limit value - Short term		Remarks
			mg/m3	ppm	mg/m3	ppm	
Propan-2-ol	67-63-0	Austria	200	500	800	2000	/
Propan-2-ol	67-63-0	Belgium	200	500	400 (1)	1000 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Denmark	200	490	400	980	/
Propan-2-ol	67-63-0	Finland	200	500	250 (1)	620 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	France	/	/	400	980	/
Propan-2-ol	67-63-0	Germany (AGS)	200	500	400 (1)	1000 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Germany (DFG)	1000 (1)	200	500	400 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Hungary	/	500 (1)	/	1000 (1)(2)	(1) Skin (2) 15 minutes average value
Propan-2-ol	67-63-0	Ireland	200	/	/	400 (1)	(1) 15 minutes reference period
Propan-2-ol	67-63-0	Latvia	350	/	/	600 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Norway	100	245	/	/	/
Propan-2-ol	67-63-0	Poland	/	900 (1)	/	1200 (1)(2)	(1) Skin (2) 15 minutes average value
Propan-2-ol	67-63-0	Romania	81	200	203 (1)	500 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Spain	200	500	400	1000	/
Propan-2-ol	67-63-0	Sweden	150	350	250 (1)	600 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Switzerland	200	500	400	1000	/
Propan-2-ol	67-63-0	United Kingdom	400	999	500 (1)	1250 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	Austria	20	98	40	200	/
2-Butoxyethanol	111-76-2	Belgium	20	98	50 (1)	246 (1)	Additional indication "D" means that the absorption of the agent through the skin, mucous membranes or eyes is an important part of the total exposure. It can be the result of both direct contact and its presence in the air. (1) 15 minutes average value
2-Butoxyethanol	111-76-2	Denmark	20 (1)	98 (1)	40 (1)(2)	196 (1)(2)	1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	European Union	**20**	**98**	**50 (1)**	**246 (1)**	(1) 15 minutes average value Bold-type: Indicative Occupational Exposure Limit Value (IOELV)
2-Butoxyethanol	111-76-2	Finland	20	98	50 (1)	250 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	France	**10**	**49**	**50 (1)**	**246 (1)**	Bold type: Restrictive statutory limit values Skin (1) 15 minutes average value
2-Butoxyethanol	111-76-2	Germany (AGS)	10 (1)	49 (1)	20 (1)(2)	98 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Germany (DFG)	10 (1)(2)	49 (2)	20 (1)(2)(3)	98 (2)(3)	(1) MAK value applies for the sum of the concentrations of 2-Butoxyethanol and 2-Butoxyethylacetate in air (2) Skin (3) 15 minutes average value
2-Butoxyethanol	111-76-2	Hungary	/	98 (1)	/	246 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Ireland	20	98	50 (1)	246 (1)	(1) 15 minutes reference period
2-Butoxyethanol	111-76-2	Italy	20 (1)	98 (1)	50 (1)(2)	246 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Latvia	20	98	50 (1)	246 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	Norway	10 (1)	50 (1)			(1) Skin
2-Butoxyethanol	111-76-2	Poland	/	98 (1)	/	200 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Romania	20	98	50 (1)	246 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	Spain	20 (1)	98 (1)	50 (1)(2)	245 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Sweden	10	50	50 (1)	246 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	10	49	20	98	10	/
2-Butoxyethanol	111-76-2	The Netherlands	20,4 (1)	100 (1)	50 (1)(2)	246 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	United Kingdom	25 (1)	123 (1)	50 (1)(2)	246 (1)(2)	(1) Skin (2) 15 minutes average value

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8.1.2 Biological limit values:

Substance	CAS No.	Parameter	Biological limits values (BAT)	Biological sample	Sampling time
/	/	/	/	/	/

8.1.3 DNEL/PNEC:
disodium metasilicate 6834-92-0 DNEL 8,22 [mg/m³] inhalation systemic
propan-2-ol 67-63-0 DNEL 500 [mg/m³] inhalation systemic
2-butoxyethanol 111-76-2 98 [mg/m³] inhalation systemic
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts 61789-40-0 DNEL 8,22 [mg/m³] inhalation systemic

DNEL - tetrasodium ethylene diamine tetraacetate

End Users/Exposure	Value	Method of exposure
Workers / Long-term systemic and local effects	1.5 mg/m3	Inhalation
Workers / Short-term systemic and local effects	3 mg/m3	Inhalation
Users/ Long-term systemic and local effects	0.6 mg/m3	Inhalation
Users/ Short-term systemic and local effects	1.2 mg/m3	Inhalation

PNEC - tetrasodium ethylene diamine tetraacetate

Environment	Value
Freshwater	2.2 mg/l (rating factor – 10)
Marine water	0.22 mg/l (rating factor – 100)
Biological treatment plant	43 mg/l
Single release	1.2 mg/l

DNEL - 2-butoxyethanol

End Users/Exposure	Value	Method of exposure
Workers / Long-term systemic effects	98 mg/m3	Inhalation
Workers / Acute systemic effects	1091 mg/m3	Inhalation
Workers / Acute local effects	246 mg/m3	Inhalation
Workers / Long-term systemic effects	125 mg/kg body weight/day	Through the skin
Workers / Acute systemic effects	89 mg/kg body weight/day	Through the skin
Users / Long-term systemic effects	59 mg/m3	Inhalation
Users / Acute systemic effects	426 mg/m3	Inhalation
Users / Long-term systemic effects	89 mg/kg body weight/day	Through the skin
Users / Acute systemic effects	89 mg/kg body weight/day	Through the skin
Users / Long-term systemic effects	6.3 mg/kg body weight/day	Ingestion
Users / Acute systemic effects	7,5 mg/kg body weight/day	Ingestion

PNEC - 2-butoxyethanol

Environment	Value
Freshwater	8.8 mg/l (rating factor – 10)
Marine water	0.22 mg/l (rating factor – 100)
Biological treatment plant	463 mg/l
Single release	34.6 mg/l
Marine sediment	3.46 mg/l
Ground	2.33 mg/kg dry material

8.2 Exposure controls

8.2.1 Appropriate engineering controls: No information available.

8.2.2 Individual protection measures, such as personal protective equipment:

Personal protective equipment must comply with EN standards: respirator EN 136, 140, 149; protective glasses EN 166; protective clothing: SIST EN 340, 463, 468, 943-1, 943-2; gloves EN 374, protective shoes EN-ISO 20345.

- General

General instructions for personal protection: avoid contact with skin, eyes and clothing. Remove contaminated clothing immediately and wash before reuse. Make sure

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	eyewash stations and safety showers are close to where the product is to be used.
• Eye/face protection	Protective glasses.
• Skin protection	Protective work clothes. Glove material: nitrile rubber Break-through time: > 480 min Glove thickness: 0.4 mm Camatril® 730.
• Hand protection	Gloves should be inspected before use. Change gloves regularly. Note: specifications are based on information and tests of similar substances by analogy. Due to different conditions (e.g., temperature or other loads), it should be taken into account that the use of a chemical protective glove in practice can be much shorter than the breakthrough time determined according to EN 374. Because the actual conditions of practical use often deviate from the standardized conditions according to EN 374, recommended by the glove manufacturer the use of gloves to protect against chemicals in practice no more than 50% of the recommended breakthrough time. Due to the wide range of types of gloves, it is necessary to follow the manufacturer's instructions for use.
• Respiratory protection	If vapors are generated, use a respirator with an approved filter.
• Thermal hazards	No information available.
8.2.3 Environmental exposure controls:	Handle in accordance with local environmental regulations and good industrial practice.
Additional information:	No information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	**Value/Unit/Method**
Physical state	Liquid
Colour	Light yellow
Odour	Mild
Odor threshold limit value	No information available.
Melting point/freezing point	No information available.
Boiling point or initial boiling point and boiling range	No information available.
Flammability	No information available.
Lower/upper explosive limit	No information available.
Flash point	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
pH	>11 (20 °C)
Kinematic viscosity	No information available.
Solubility	No information available.
Partition coefficient n-octanol/water (log value)	No information available.
Vapor pressure	No information available.
Density and/or relative density	1.10 g/cm³ pri 20 °C
Relative density	No information available.
Relative vapor density	No information available.
Particle characteristics	No information available.
Oxidizing properties	The product is not oxidizing
9.2 Other information:	
9.2.1 Information with regard to physical hazard classes	No information available.
9.2.2 Other safety characteristics	No information available.
Additional information:	No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity	There is no risk of reactivity under normal storage and handling conditions.
10.2 Chemical stability	Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions	There are no known specific conditions that should be avoided.
10.4 Conditions to avoid	There are no known specific conditions that should be avoided.
10.5 Incompatible Materials	No information available.
10.6 Hazardous decomposition products	Under the prescribed conditions of storage and handling, the product does not decompose.
Additional information:	No information available.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 (CLP)

Acute toxicity: The mixture is not classified.

Ingredients that may contribute to acute oral toxicity:
2-butoxyethanol, LD 50 (oral): ATE 500 mg/kg
tetrasodium ethylenediaminetetraacetate, LD 50 (oral): ATE 500 mg/kg
Alcohols, C9-11-iso-, C10-rich, ethoxylated, LD 50 (oral): ATE 500 mg/kg
Calculated estimated value for acute oral toxicity ATE (mixtures): 1515 mg/kg
The mixture is therefore classified in category 4 Acute toxicity (oral).

Ingredients that may contribute to acute dermal toxicity:
There are no suitable ingredients in the mixture. The mixture is not classified according to acute toxicity (dermal).

Ingredients that may contribute to acute inhalation toxicity:
2-butoxyethanol, LC 50 (inhalation): ATE 3 mg/l/4h
Calculated estimated value for acute inhalation toxicity ATE (mixture): 37 mg/l/4h
The mixture is therefore not classified as acutely toxic (inhalation).

Skin corrosion/irritation: Result: the mixture is classified in category 1B.

Serious eye damage/irritation: Substances classified as corrosive substances of category 1B also cause severe eye damage. The mixture is classified in category 1.

Respiratory or skin sensitisation: The mixture is not classified.

Germ cell mutagenicity: The mixture is not classified.

Carcinogenicity: The mixture is not classified.

Reproductive toxicity: The mixture is not classified.

STOT – single exposure: The mixture is not classified.

Components that may contribute to specific target organ toxicity - single exposure:
Respiratory tract irritation:
Important substances:
disodium metasilicate, Substance Classification: Category 3
The mixture is not classified as specific target organ toxicity - single exposure: respiratory tract irritation.

Components that may contribute to specific target organ toxicity - single exposure:
Narcotic effects:
Important substances:
propan-2-ol, Substance classification: Category 3
The mixture is not classified in Specific target organ toxicity - single exposure:

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	Narcotic effects.
STOT - repeated exposure:	The mixture is not classified.
Aspiration hazard:	The mixture is not classified.
Information on likely routes of exposure:	No information available.
Symptoms related to the physical, Chemical and toxicological characteristics:	No information available.
Delayed and immediate effects as Well as chronic effects from short and long-term exposure:	No information available.
Interactive effects	No information available.
Absence of specific data:	No information available.
Mixture versus substance information:	No information available.

11.2 Information on other hazards

Endocrine disruptor properties:	No information available.
Other information:	No information available.

SECTION 12: Ecological information

12.1 Toxicity

The ecotoxicological assessment is based on data on the toxicity of the ingredients that make up the product.

tetrasodium ethylenediaminetetraacetate

Result	Species	Exposure / method
Acute LC50 > 100 mg/l	Fish – *Lepomis macrochirus*	96h / OPP 72-1 (EPA Directive)
Chronic NOEC >= 36.9 mg/l	Fish – *Brachydania rerio*	35d / OECD Test Guideline 210
Acute EC50 > 100 mg/l	Water plants – Scenedesmus obliquus	72h /88/302/EWG
Acute EC50 > 100 mg/l	Aquatic Invertebrates – Daphnia magna	48h / DIN 38412
Chronic NOEC 25 mg/l	Aquatic Invertebrates – Daphnia magna	21d / OECD Test Guideline 211
Acute EC20 > 500 mg/l	Microorganisms – activated sludge	30 min/ OECD Test Guideline 209
Chronic NOEC 84 mg/kg	Terrestrial plants	21d

2-propanol

Result	Species	Exposure / method
Acute EC50 10100 mg/l, fresh water	Aquatic invertebrates – Daphnia magna	48h
Acute LC50 1400000 µg/l, sea water	Aquatic invertebrates - Crangon crangon	48h
Acute LC50 4200 mg/l, fresh water	Fish – Rasbora heteromorpha	96h

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butoxyethanol

Result	Species	Exposure / method
Acute LC50 1474 mg/l	Fish – *Oncorhynchus mykiss*	96h / OECD Test Guideline 203
Chronic NOEC > 100 mg/l	Fish – *Danio rerio*	21d / OECD Test Guideline 204
Acute EC50 911 mg/l	Water plants - *Pseudokirchneriella subcapitata*	72h / OECD Test Guideline 201
Acute EC50 1800 mg/l	Aquatic invertebrates – Daphnia magna	48h / OECD Test Guideline 202
Chronic NOEC > 100 mg/l	Aquatic invertebrates – Daphnia magna	21d / OECD Test Guideline 211

12.2 Persistence and degradability

The surfactants found in this detergent meet the criterion of complete aerobic biodegradability given in accordance with Regulation 648/2004/EC.

Biodegradability of the component included in the composition of the product:
2-butoksietanol, CAS: 111-76-2
Biodegradation: 90.4%
Exposure time: 28 days
Result: Easily biodegradable.

Method: OECD Test Guideline 301B

12.3 Bioaccumulative potential

Bioaccumulative potential of the component included in the composition of the product:
2-propanol, CAS: 67-63-0

LogPow 0.05 - low bioaccumulation potential

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

Does not meet the criteria for identification as PBT and vPvB.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment of mixture:

When removing - do not mix with municipal waste. You must hand over the used product, waste or unused parts of the product to an authorized person who collects and handles waste in accordance with national regulations and legislation on waste.

The owner or other owner of the waste, or the authorized operator, is obliged to classify the waste in the prescribed manner, carry out testing of hazardous waste and waste that may be dangerous due to its origin, composition and properties.

It is forbidden to mix it with other types of waste that pose a greater risk to the environment.

EWC code: No information available.

Waste treatment of packaging: No information available.

EWC code: 15 01 10* Packaging containing residues of dangerous substances or contaminated with dangerous substances

Additional information: No information available.

SECTION 14: Transport information

14.1 UN number and ID number: 1760

14.2 UN proper shipping name: ADR/RID - CORROSIVE LIQUID IMDG - CORROSIVE LIQUID
14.3 Transport hazard class(es):
ADR/RID 8
IMDG 8
IATA 8
14.4 Packing group:
ADR/RID III
IMDG III
IATA III
14.5 Environmental hazards: According to traffic regulations, it is not classified as dangerous.
14.6 Special precautions for user: No
14.7 Maritime transport in bulk according to IMO instruments: Not transported in bulk.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 on registration, evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency and amending the Directive 1999/45 / EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 and Council Directives 76/769 / EEC and Commission Directives 91/155 / EEC, 93/67 / EEC, 93/105 / EC and 2000/21 / EC (as amended by Commission Regulation (EU) No. 830/2015) - with amendments
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548 / EEC and 1999/45 / EC and amending Regulation (EC) No 1234/2007.

15.2 Chemical safety assessment
No information available.

SECTION 16: Other information

Changes to the safety data sheet: No information available.

Abbreviations:
CLP - Classification, Labelling and Packaging
DNEL – Derived No-Effect Level
EWC code - six-digit code used to identify waste as listed in the European Waste Catalogue
PNEC - Predicted concentration without effect
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals
STOT – Specific Target Organ Toxicity
UFI - the 16-character unique formula identifier (UFI) code

Resources for creating a safety data sheet: AS-JEW- SI (Revision date: 10.10.2023)

List of relevant hazard statements and/or precautionary statements under sections 2 to 15:
H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.

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H400 Very toxic to aquatic life.

Training for workers: No information available.

Recommended usage restrictions: No information available.

The information in the safety data sheet is based on our knowledge and available information. The safety data sheet indicates the product and the safety measures prescribed for it. The safety data sheet does not guarantee the quality of the product. A legal or natural person who places a chemical on the market is not responsible for any improper use, only this and the resulting consequences.

- End of safety data sheet -

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Trade name: AS-OPT
Product code: No information available.
UFI: SGPK-A7QP-300S-GS6Q

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Identified uses: Concentrated agent for degreasing internal combustion engine parts with ultrasonic cleaning - washing in ultrasonic baths and bathrooms.
Uses advised against: Do not use for purposes other than those recommended.

1.3 Details of the supplier of the safety data sheet:

Manufacturer:
ASONIC d.o.o.
Tržaška cesta 134
1000 Ljubljana, Slovenia
Phone: + 386 41 566618
e-mail: order@asonic.si

1.4 Emergency telephone number:

Belgium: 070 245 245
Bulgaria: +359 2 9154 233
Croatia: +3851 2348 342 (24/7 in Croatian and English).
Czech Republic: +420 224 919 293, +420 224 915 402
Denmark: +45 8212 1212
Estonia: 112 (National emergency telephone number (Häirekeskuse number)); 16662 (nationally) and +372) 7943 794 (calling from abroad)
Finland: 0800 147 111, 09 471 977 (Open 24 hours a day)
France: + 33 (0)1 45 42 59 59
Greece: (0030) 2107793777
Hungary: +36-80-201-199 (0-24h, free of charge)
Ireland: 01 809 2566
Italy (CAP, Phone Number, City): 00165 06 68593726 (Roma); 71122 800183459 (Foggia); 80131 081-5453333 (Napoli); 161 06-49978000 (Roma); 168 06-3054343 (Roma); 50134 055-7947819 (Firenze); 27100 0382-24444 (Pavia); 20162 02-66101029 (Milano); 24127 800883300 (Bergamo); 37126 800011858 (Verona).
Latvia: Valsts ugunsdzēsības un glābšanas dienests, phone number: 112. Toksikoloģijas un sepses klīnikas Saindēšanās un zāļu informācijas centrs, Hipokrāta 2, Rīga, Latvija, LV-1038, phone number +371 67042473. Service is available 24 hours.
Lithuania: +370 (85) 2362052
Luxembourg: (+352) 8002 5500 (24/7, experts answer in French, Dutch and English)
The Netherlands: +31 (0)88 755 8000
Norway: 22 59 13 00 (Open 24 hours a day, 7 days a week.)
Portugal: +351 800 250 250
Romania: +40213183606
Slovakia: +421 2 5477 4166
Slovenia: 112
Spain: + 34 91 562 04 20 (available 24h/365 days)
Sweden: 112

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture:

2.1.1 Classification according to Regulation (EC) No 1272/2008 (CLP)

Flam. Liq. 2, H225 (Flammable liquids, Category 2, H225)
Acute Tox. 4, H302 (Acute toxicity (oral), Category 4, H302)
Skin Corr. 1B, H314 (Skin corrosion/irritation, Category 1B, H314)
Eye Dam. 1, H318 (Serious eye damage/Eye irritation, Category 1, H318)

2.2 Label elements:

2.2.1 Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word(s): Danger

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Hazard pictogram(s):

Hazard statement(s):
H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.

Precautionary statement(s):
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P235 Keep cool.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilation/lighting/... equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor/... if you feel unwell.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor/...
P321 Specific treatment (see on this label).
P330 Rinse mouth.
P363 Wash contaminated clothing before reuse.
P370 + P378 In case of fire: Use carbon dioxide (CO2), water spray, alcohol-resistant foam, dry powder to extinguish.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/container to according to regulations.

Contains:
propan-2-ol; tetrasodium ethylene diamine tetraacetate; 2-butoxyethanol; disodium metasilicate; Oxirane, 2-methyl-, polymer with oxirane, mono(2-propylheptyl) ether

2.3 Other hazards:
The mixture does not meet the criteria for classification as PBT and vPvB.

SECTION 3: Composition/information on ingredients

3.1 Mixture

Description of the substance/mixture: No information available.

Substance	EC No.	CAS No.	Index No.	CLP-classification	Concentration % (w/w)	REACH Reg. No.
tetrasodium ethylene diamine tetraacetate	200-573-9	64-02-8	607-428-00-2	Acute Tox. 4, H302 Eye Dam. 1, H318	5 - < 10	/
disodium metasilicate	229-912-9	6834-92-0	014-010-00-8	Skin Corr. 1B, H314 STOT SE 3, H335	2 - 12	/
propan-2-ol	200-661-7	67-63-0	603-117-00-0	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	2 - 12	/
2-butoxyethanol	203-905-0	111-76-2	603-014-00-0	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Acute Tox. 3, H331	1 - 5	/
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	263-058-8	61789-40-0	/	Skin Irrit. 2, H315 Eye Irrit. 2, H319	1 - 5	/
Oxirane, 2-methyl-, polymer with oxirane, mono(2-propylheptyl) ether	605-450-7	166736-08-9	/	Acute Tox. 4, H302 Eye Dam. 1, H318	5-15	/

More information: Please see section 16 for the full text of H- / EUH-phrases.

SECTION 4: First aid measures

4.1 Description of first aid measures

General: No information available.
Inhalation: In case of inhalation of product/vapours, remove exposed person to fresh air. If coughing and/or other breathing problems occur - seek medical help immediately.
Skin contact**:** Wash skin with soap and water. If clothes and shoes are dirty, they should be taken off. If skin irritation occurs, seek medical attention.
Eye contact: If contact occurs, flush eyes with water for at least 15 minutes, keeping eyes open. Contact lenses, if they exist and can be done, remove them. In case of irritation, seek medical attention.
Ingestion: If the person feels unwell, call a POISON CENTER or doctor. Do not induce vomiting.
Protection of the first aider: No information available.

4.2 Most important symptoms and effects, both acute and delayed

Eyes: redness, pain, blurred vision
Skin: redness, pain, burns, blisters
Ingestion: may be harmful if swallowed. If the substance enters the lungs, signs and symptoms may include coughing, choking, wheezing, difficulty breathing, chest tightness, shortness of breath, and/or fever.
Inhalation: harmful by inhalation.

4.3 Indication of any immediate medical attention and special treatment needed

Treat according to symptoms. Show the safety data sheet or product label to the medical staff.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Carbon dioxide (CO_2), water spray, alcohol-resistant foam, dry powder.
Unsuitable extinguishing media: Water jet.

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5.2 Special hazards arising from the substance or mixture	In case of fire, the following can be released: carbon dioxide (CO2); Carbon monoxide (CO), Flammable gases/vapours. It is not flammable. There is no risk of explosion. Combustion products: Carbon monoxide (CO), carbon dioxide (CO2).
5.3 Advice for firefighters	In case of fire: Wear self-contained breathing apparatus and protective suit.
Additional information:	No information available.

SECTION 6: Accidental release measures

6.1 Personal safety measures, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:	Wear protective clothing. For more information, see section 8. Notify emergency personnel. Restrict access to the endangered area until the consequences of the accident are eliminated. Eliminate potential sources of ignition. Remove spilled product. Ensure adequate ventilation. Notify local authorities in accordance with applicable regulations. Avoid contact with skin, eyes and clothing. Prevent the product from entering surface water, drains, groundwater or waterways.
6.1.2 For emergency responders:	No information available.
6.2 Environmental precautions	Do not allow to enter surface waters or sewers.
6.3 Methods and materials for containment and cleaning up	
6.3.1 Spill Containment:	Stop leaks and runoff into the environment. Remove sources of ignition (open flame, sparks...).
6.3.2 Spill clean-up:	Collect the spilled agent mechanically with an adsorption material (sawdust, sand, earth) and remove it to a marked container for further disposal in accordance with the applicable waste management regulations. Comply with applicable laws and regulations.
6.3.3 Other information:	No information available.
6.4 References to other sections	Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal: see section 13.
Additional information:	No information available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations for preventing fire, the formation of aerosols and dust, and for protecting the environment:	Do not breathe vapor or mist. Wear personal protective equipment. Ensure effective ventilation. Avoid contact with eyes, skin and clothing. Store in original packaging.
Advice on general occupational hygiene:	Do not eat, drink or smoke while working, wash your hands with soap after working with the product.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:	Store in original packaging. Keep containers tightly closed in a dry, cool and well-ventilated area. Prevent air/oxygen entry (peroxide formation). Keep away from sources of heat and ignition. Store away from direct sunlight.
Packaging materials:	No information available.
Requirements for storage areas and containers:	No information available.
Storage class:	No information available.

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7.3 Specific end use(s) According to the technical information.
Recommendations: No information available.
Specific uses for industry: No information available.

Additional information: No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.1.1 Occupational exposure limit:

Substance	CAS No.	Country	Limit values 8h		Limit value - Short term		Remarks
			mg/m3	ppm	mg/m3	ppm	
Propan-2-ol	67-63-0	Austria	200	500	800	2000	/
Propan-2-ol	67-63-0	Belgium	200	500	400 (1)	1000 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Denmark	200	490	400	980	/
Propan-2-ol	67-63-0	Finland	200	500	250 (1)	620 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	France	/	/	400	980	/
Propan-2-ol	67-63-0	Germany (AGS)	200	500	400 (1)	1000 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Germany (DFG)	1000 (1)	200	500	400 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Hungary	/	500 (1)	/	1000 (1)(2)	(1) Skin (2) 15 minutes average value
Propan-2-ol	67-63-0	Ireland	200	/	/	400 (1)	(1) 15 minutes reference period
Propan-2-ol	67-63-0	Latvia	350	/	/	600 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Norway	100	245	/	/	/
Propan-2-ol	67-63-0	Poland	/	900 (1)	/	1200 (1)(2)	(1) Skin (2) 15 minutes average value
Propan-2-ol	67-63-0	Romania	81	200	203 (1)	500 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Spain	200	500	400	1000	/
Propan-2-ol	67-63-0	Sweden	150	350	250 (1)	600 (1)	(1) 15 minutes average value
Propan-2-ol	67-63-0	Switzerland	200	500	400	1000	/
Propan-2-ol	67-63-0	United Kingdom	400	999	500 (1)	1250 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	Austria	20	98	40	200	/
2-Butoxyethanol	111-76-2	Belgium	20	98	50 (1)	246 (1)	Additional indication "D" means that the absorption of the agent through the skin, mucous membranes or eyes is an important part of the total exposure. It can be the result of both direct contact and its presence in the air. (1) 15 minutes average value
2-Butoxyethanol	111-76-2	Denmark	20 (1)	98 (1)	40 (1)(2)	196 (1)(2)	1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	European Union	**20**	**98**	**50 (1)**	**246 (1)**	(1) 15 minutes average value Bold-type: Indicative Occupational Exposure Limit Value (IOELV)
2-Butoxyethanol	111-76-2	Finland	20	98	50 (1)	250 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	France	**10**	**49**	**50 (1)**	**246 (1)**	Bold type: Restrictive statutory limit values Skin (1) 15 minutes average value
2-Butoxyethanol	111-76-2	Germany (AGS)	10 (1)	49 (1)	20 (1)(2)	98 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Germany (DFG)	10 (1)(2)	49 (2)	20 (1)(2)(3)	98 (2)(3)	(1) MAK value applies for the sum of the concentrations of 2-Butoxyethanol and 2-Butoxyethylacetate in air (2) Skin (3) 15 minutes average value
2-Butoxyethanol	111-76-2	Hungary	/	98 (1)	/	246 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Ireland	20	98	50 (1)	246 (1)	(1) 15 minutes reference period
2-Butoxyethanol	111-76-2	Italy	20 (1)	98 (1)	50 (1)(2)	246 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Latvia	20	98	50 (1)	246 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	Norway	10 (1)	50 (1)			(1) Skin
2-Butoxyethanol	111-76-2	Poland	/	98 (1)	/	200 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Romania	20	98	50 (1)	246 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	Spain	20 (1)	98 (1)	50 (1)(2)	245 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	Sweden	10	50	50 (1)	246 (1)	(1) 15 minutes average value
2-Butoxyethanol	111-76-2	10	49	20	98	10	/
2-Butoxyethanol	111-76-2	The Netherlands	20,4 (1)	100 (1)	50 (1)(2)	246 (1)(2)	(1) Skin (2) 15 minutes average value
2-Butoxyethanol	111-76-2	United Kingdom	25 (1)	123 (1)	50 (1)(2)	246 (1)(2)	(1) Skin (2) 15 minutes average value

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8.1.2 Biological limit values:

Substance	CAS No.	Parameter	Biological limits values (BAT)	Biological sample	Sampling time
/	/	/	/	/	/

8.1.3 DNEL/PNEC:
disodium metasilicate 6834-92-0 DNEL 8,22 [mg/m³] inhalation systemic
propan-2-ol 67-63-0 DNEL 500 [mg/m³] inhalation systemic
2-butoxyethanol 111-76-2 98 [mg/m³] inhalation systemic
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts 61789-40-0 DNEL 8,22 [mg/m³] inhalation systemic

DNEL - tetrasodium ethylene diamine tetraacetate

End Users/Exposure	Value	Method of exposure
Workers / Long-term systemic and local effects	1.5 mg/m3	Inhalation
Workers / Short-term systemic and local effects	3 mg/m3	Inhalation
Users/ Long-term systemic and local effects	0.6 mg/m3	Inhalation
Users/ Short-term systemic and local effects	1.2 mg/m3	Inhalation

PNEC - tetrasodium ethylene diamine tetraacetate

Environment	Value
Freshwater	2.2 mg/l (rating factor – 10)
Marine water	0.22 mg/l (rating factor – 100)
Biological treatment plant	43 mg/l
Single release	1.2 mg/l

DNEL - 2-butoxyethanol

End Users/Exposure	Value	Method of exposure
Workers / Long-term systemic effects	98 mg/m3	Inhalation
Workers / Acute systemic effects	1091 mg/m3	Inhalation
Workers / Acute local effects	246 mg/m3	Inhalation
Workers / Long-term systemic effects	125 mg/kg body weight/day	Through the skin
Workers / Acute systemic effects	89 mg/kg body weight/day	Through the skin
Users / Long-term systemic effects	59 mg/m3	Inhalation
Users / Acute systemic effects	426 mg/m3	Inhalation
Users / Long-term systemic effects	89 mg/kg body weight/day	Through the skin
Users / Acute systemic effects	89 mg/kg body weight/day	Through the skin
Users / Long-term systemic effects	6.3 mg/kg body weight/day	Ingestion
Users / Acute systemic effects	7,5 mg/kg body weight/day	Ingestion

PNEC - 2-butoxyethanol

Environment	Value
Freshwater	8.8 mg/l (rating factor – 10)
Marine water	0.22 mg/l (rating factor – 100)
Biological treatment plant	463 mg/l
Single release	34.6 mg/l
Marine sediment	3.46 mg/l
Ground	2.33 mg/kg dry material

8.2 Exposure controls

8.2.1 Appropriate engineering controls: No information available.

8.2.2 Individual protection measures, such as personal protective equipment:

Personal protective equipment must comply with EN standards: respirator EN 136, 140, 149; protective glasses EN 166; protective clothing: SIST EN 340, 463, 468, 943-1, 943-2; gloves EN 374, protective shoes EN-ISO 20345.

- General

General instructions for personal protection: avoid contact with skin, eyes and clothing. Remove contaminated clothing immediately and wash before reuse. Make sure

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	eyewash stations and safety showers are close to where the product is to be used.
• Eye/face protection	Protective glasses.
• Skin protection	Protective work clothes.
• Hand protection	Glove material: nitrile rubber Break-through time: > 480 min Glove thickness: 0.4 mm Camatril® 730. Gloves should be inspected before use. Change gloves regularly. Note: specifications are based on information and tests of similar substances by analogy. Due to different conditions (e.g., temperature or other loads), it should be taken into account that the use of a chemical protective glove in practice can be much shorter than the breakthrough time determined according to EN 374. Because the actual conditions of practical use often deviate from the standardized conditions according to EN 374, recommended by the glove manufacturer the use of gloves to protect against chemicals in practice no more than 50% of the recommended breakthrough time. Due to the wide range of types of gloves, it is necessary to follow the manufacturer's instructions for use.
• Respiratory protection	If vapors are generated, use a respirator with an approved filter.
• Thermal hazards	No information available.
8.2.3 Environmental exposure controls:	Handle in accordance with local environmental regulations and good industrial practice.
Additional information:	No information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	**Value/Unit/Method**
Physical state	Liquid
Colour	Light yellow
Odour	Mild
Odor threshold limit value	No information available.
Melting point/freezing point	No information available.
Boiling point or initial boiling point and boiling range	No information available.
Flammability	No information available.
Lower/upper explosive limit	No information available.
Flash point	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
pH	>11 (20 °C)
Kinematic viscosity	No information available.
Solubility	No information available.
Partition coefficient n-octanol/water (log value)	No information available.
Vapor pressure	No information available.
Density and/or relative density	1.10 g/cm³ pri 20 °C
Relative density	No information available.
Relative vapor density	No information available.
Particle characteristics	No information available.
Oxidizing properties	The product is not oxidizing
9.2 Other information:	
9.2.1 Information with regard to physical hazard classes	No information available.
9.2.2 Other safety characteristics	No information available.
Additional information:	No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity	There is no risk of reactivity under normal storage and handling conditions.
10.2 Chemical stability	Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions	There are no known specific conditions that should be avoided.
10.4 Conditions to avoid	There are no known specific conditions that should be avoided.
10.5 Incompatible Materials	No information available.
10.6 Hazardous decomposition products	Under the prescribed conditions of storage and handling, the product does not decompose.
Additional information:	No information available.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 (CLP)

Acute toxicity: The mixture is not classified.

Ingredients that may contribute to acute oral toxicity:
2-butoxyethanol, LD 50 (oral): ATE 500 mg/kg
tetrasodium ethylenediaminetetraacetate, LD 50 (oral): ATE 500 mg/kg
Alcohols, C9-11-iso-, C10-rich, ethoxylated, LD 50 (oral): ATE 500 mg/kg
Calculated estimated value for acute oral toxicity ATE (mixtures): 1515 mg/kg
The mixture is therefore classified in category 4 Acute toxicity (oral).

Ingredients that may contribute to acute dermal toxicity:
There are no suitable ingredients in the mixture. The mixture is not classified according to acute toxicity (dermal).

Ingredients that may contribute to acute inhalation toxicity:
2-butoxyethanol, LC 50 (inhalation): ATE 3 mg/l/4h
Calculated estimated value for acute inhalation toxicity ATE (mixture): 37 mg/l/4h
The mixture is therefore not classified as acutely toxic (inhalation).

Skin corrosion/irritation: Result: the mixture is classified in category 1B.

Serious eye damage/irritation: Substances classified as corrosive substances of category 1B also cause severe eye damage. The mixture is classified in category 1.

Respiratory or skin sensitisation: The mixture is not classified.

Germ cell mutagenicity: The mixture is not classified.

Carcinogenicity: The mixture is not classified.

Reproductive toxicity: The mixture is not classified.

STOT – single exposure: The mixture is not classified.

Components that may contribute to specific target organ toxicity - single exposure:
Respiratory tract irritation:
Important substances:
disodium metasilicate, Substance Classification: Category 3
The mixture is not classified as specific target organ toxicity - single exposure: respiratory tract irritation.

Components that may contribute to specific target organ toxicity - single exposure:
Narcotic effects:
Important substances:
propan-2-ol, Substance classification: Category 3
The mixture is not classified in Specific target organ toxicity - single exposure:

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	Narcotic effects.
STOT - repeated exposure:	The mixture is not classified.
Aspiration hazard:	The mixture is not classified.
Information on likely routes of exposure:	No information available.
Symptoms related to the physical, Chemical and toxicological characteristics:	No information available.
Delayed and immediate effects as Well as chronic effects from short and long-term exposure:	No information available.
Interactive effects	No information available.
Absence of specific data:	No information available.
Mixture versus substance information:	No information available.

11.2 Information on other hazards

Endocrine disruptor properties:	No information available.
Other information:	No information available.

SECTION 12: Ecological information

12.1 Toxicity

The ecotoxicological assessment is based on data on the toxicity of the ingredients that make up the product.

tetrasodium ethylenediaminetetraacetate

Result	Species	Exposure / method
Acute LC50 > 100 mg/l	Fish – *Lepomis macrochirus*	96h / OPP 72-1 (EPA Directive)
Chronic NOEC >= 36.9 mg/l	Fish – *Brachydania rerio*	35d / OECD Test Guideline 210
Acute EC50 > 100 mg/l	Water plants – Scenedesmus obliquus	72h /88/302/EWG
Acute EC50 > 100 mg/l	Aquatic Invertebrates – Daphnia magna	48h / DIN 38412
Chronic NOEC 25 mg/l	Aquatic Invertebrates – Daphnia magna	21d / OECD Test Guideline 211
Acute EC20 > 500 mg/l	Microorganisms – activated sludge	30 min/ OECD Test Guideline 209
Chronic NOEC 84 mg/kg	Terrestrial plants	21d

2-propanol

Result	Species	Exposure / method
Acute EC50 10100 mg/l, fresh water	Aquatic invertebrates – Daphnia magna	48h
Acute LC50 1400000 µg/l, sea water	Aquatic invertebrates - Crangon crangon	48h
Acute LC50 4200 mg/l, fresh water	Fish – Rasbora heteromorpha	96h

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butoxyethanol

Result	Species	Exposure / method
Acute LC50 1474 mg/l	Fish – *Oncorhynchus mykiss*	96h / OECD Test Guideline 203
Chronic NOEC > 100 mg/l	Fish – *Danio rerio*	21d / OECD Test Guideline 204
Acute EC50 911 mg/l	Water plants - *Pseudokirchneriella subcapitata*	72h / OECD Test Guideline 201
Acute EC50 1800 mg/l	Aquatic invertebrates – Daphnia magna	48h / OECD Test Guideline 202
Chronic NOEC > 100 mg/l	Aquatic invertebrates – Daphnia magna	21d / OECD Test Guideline 211

12.2 Persistence and degradability

The surfactants found in this detergent meet the criterion of complete aerobic biodegradability given in accordance with Regulation 648/2004/EC.

Biodegradability of the component included in the composition of the product:
2-butoksietanol, CAS: 111-76-2
Biodegradation: 90.4%
Exposure time: 28 days
Result: Easily biodegradable.

Method: OECD Test Guideline 301B

12.3 Bioaccumulative potential

Bioaccumulative potential of the component included in the composition of the product:
2-propanol, CAS: 67-63-0

LogPow 0.05 - low bioaccumulation potential

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

Does not meet the criteria for identification as PBT and vPvB.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment of mixture:

When removing - do not mix with municipal waste. You must hand over the used product, waste or unused parts of the product to an authorized person who collects and handles waste in accordance with national regulations and legislation on waste.

The owner or other owner of the waste, or the authorized operator, is obliged to classify the waste in the prescribed manner, carry out testing of hazardous waste and waste that may be dangerous due to its origin, composition and properties.

It is forbidden to mix it with other types of waste that pose a greater risk to the environment.

EWC code: No information available.

Waste treatment of packaging: No information available.

EWC code: 15 01 10* Packaging containing residues of dangerous substances or contaminated with dangerous substances

Additional information: No information available.

SECTION 14: Transport information

14.1 UN number and ID number: 1760

14.2 UN proper shipping name: ADR/RID - CORROSIVE LIQUID IMDG - CORROSIVE LIQUID
14.3 Transport hazard class(es):
ADR/RID 8
IMDG 8
IATA 8
14.4 Packing group:
ADR/RID III
IMDG III
IATA III
14.5 Environmental hazards: According to traffic regulations, it is not classified as dangerous.
14.6 Special precautions for user: No
14.7 Maritime transport in bulk according to IMO instruments: Not transported in bulk.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 on registration, evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency and amending the Directive 1999/45 / EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 and Council Directives 76/769 / EEC and Commission Directives 91/155 / EEC, 93/67 / EEC, 93/105 / EC and 2000/21 / EC (as amended by Commission Regulation (EU) No. 830/2015) - with amendments
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548 / EEC and 1999/45 / EC and amending Regulation (EC) No 1234/2007.

15.2 Chemical safety assessment
No information available.

SECTION 16: Other information

Changes to the safety data sheet: No information available.

Abbreviations:
CLP - Classification, Labelling and Packaging
DNEL – Derived No-Effect Level
EWC code - six-digit code used to identify waste as listed in the European Waste Catalogue
PNEC - Predicted concentration without effect
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals
STOT – Specific Target Organ Toxicity
UFI - the 16-character unique formula identifier (UFI) code

Resources for creating a safety data sheet: AS-OPT- SI (Revision date: 10.10.2023)

List of relevant hazard statements and/or precautionary statements under sections 2 to 15:
H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.

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H400 Very toxic to aquatic life.

Training for workers: No information available.

Recommended usage restrictions: No information available.

The information in the safety data sheet is based on our knowledge and available information. The safety data sheet indicates the product and the safety measures prescribed for it. The safety data sheet does not guarantee the quality of the product. A legal or natural person who places a chemical on the market is not responsible for any improper use, only this and the resulting consequences.

- End of safety data sheet -

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Trade name: **ASonic Multi-purpose concentrate for ultrasonic cleaning**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Important identified uses: **Alkaline cleaner.**
Use not recommended: **Do not mix with other agents (detergents, cleaners).**

1.3. Details of the supplier of the safety data sheet

Supplier:
ASONIC d.o.o.
Tržaška cesta 134, 1000 Ljubljana, Slovenia
Tel.: +386 41 566618
e-mail: order@asonic.si

1.4. Emergency telephone number

Additional information is available on the telephone number from 08:00 until 15:00 + 386.41.566618.
The nearest health center.
In the event of danger to life, call local emergency number.

SECTION 2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1907/2006 1272/2008 (CLP)

Skin Corr. 1B; H314 Causes severe skin burns and eye damage.
Eye Dam. 1; H318 Causes serious eye damage.

2.2 Label elements

2.2.1. Labeling in accordance with Regulation (EC) No 1272/2008 [CLP]

Signal word: **Danger**

H314 Causes severe skin burns and eye damage.
P102 Keep out of reach of children.
P280 Wear protective gloves / protective clothing / eye protection / face protection.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do not induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305 +P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501 Dispose of contents / container in accordance with national regulations.

UFI number: M8R1-G0QK-C003-WMWH

2.2.2. Contains:
potassium hydroxide (CAS: 1310-58-3, EC: 215-181-3, Index: 019-002-00-8)
Quaternary alkylethoxylates (CAS: 68989-03-7)
Fatty alcohol, ethoxylated (CAS: 26183-52-8)

2.2.3. Special warnings
No special hazards known or expected.

2.3. Other hazards
No information.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Substances
For mixtures see 3.2.

3.2. Mixtures

Name	CAS EC Index	%	Classification according to Regulation (EC) No 1907/2006 1272/2008 (CLP)	Special limits concentration	Registration no. REACH
potassium hydroxide	1310-58-3 215-181-3 019-002-00-8	1-2.5	Acute Tox. 4; H302 Skin Corr. 1A; H314	Skin Corr. 1A; H314: C ≥ 5% Skin Corr. 1B; H314: 2% ≤ C <5% Skin Irrit. 2; H315: 0.5% ≤ C <2% Eye Irrit. 2; H319: 0.5% ≤ C <2%	-
Quaternary alkylethoxylates	68989-03-7 - -	1-2.5	Eye Dam. 1; H318 Aquatic Chronic 2; H411		-
Fatty alcohol, ethoxylated	26183-52-8 - -	1-2.5	Acute Tox. 4; H302 Eye Dam. 1; H318		-
Fatty acids, C8-10	68937-75-7 273-086-2 -	0.1-1	Skin Corr. 1A; H314		-
2- (2-butoxyethoxy) ethanol	112-34-5 203-961-6 603-096-00-8	0.1-1	Eye Irrit. 2; H319		-

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General remarks:
Do not give anything to eat or drink to an unconscious victim. Place the victim in a lateral position and ensure airway patency. Show the doctor the safety data sheet or label. If in doubt or feeling unwell, seek medical attention. Do not intervene if you risk your health and if you are not properly trained. If harmful vapors / vapors are still present in the air, the use of respiratory protection (mask; self-contained breathing apparatus) is mandatory. Rinse contaminated clothing with water before removal or use gloves. Providing mouth-to-mouth resuscitation can be dangerous for the person providing first aid.

After inhalation:
Transfer victim to fresh air - leave contaminated area. If the victim is unconscious, place him in a stable lateral position and seek medical attention. Seek medical attention immediately. In case of uneven breathing or respiratory arrest, provide artificial respiration to the victim. Let rest in a position that facilitates breathing.

After skin contact:
Wash the parts of the body that have come into contact with the preparation with plenty of water. Seek medical attention immediately! Remove contaminated clothing and footwear.

After eye contact:
After 5 minutes of rinsing, remove contact lenses, if present, and continue rinsing. Seek medical attention immediately! Rinse open eyes, even under the eyelids, immediately with plenty of running water.

After ingestion:
Do not induce vomiting! Show the doctor the safety data sheet or label. Seek medical attention immediately! Rinse mouth thoroughly with water. Do not put anything in the mouth of an unconscious person.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation:
Excessive exposure to mists or vapors may cause respiratory irritation.

In contact with skin:
Skin burns: Signs / symptoms may include localized redness, swelling, itching, dryness, blisters.

In eye contact:
Redness, pain, burning sensation, tearing, can cause permanent eye damage.

Ingestion:
May cause abdominal pain.
May cause nausea / vomiting and diarrhea.

If swallowed, it can cause burns in the mouth and throat, as well as perforation of the esophagus and stomach.

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media:
Carbon dioxide CO, extinguishing powder, water jet, alcohol-resistant foam.

Inadequate extinguishing media:
Direct water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products:
In case of fire, toxic gases may be formed; prevent inhalation of gases / smoke.

5.3. Advice for firefighters

Protective measures:
Do not breathe fumes / gases generated by fire or heating. Do not intervene if you risk your health and if you are not properly trained.

Protective equipment:
Complete protective clothing (SIST EN 469: 2020), helmet (SIST EN 443: 2008), protective boots (SIST EN 15090: 2012), gloves (SIST EN 659: 2003 + A1: 2008 / AC: 2009) and self-contained breathing apparatus (SIST EN 137: 2006) Show details for.

More information:
Dispose of contaminated fire fighting water and fire residues in accordance with official regulations.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For untrained staff
Protective equipment
Avoid contact with skin and eyes. Use protective equipment (see item 8).

Emergency procedures
Ensure adequate ventilation. Prevent access to unprotected persons. Take action only if you are trained and can do so safely. Evacuate danger area. Do not breathe vapor / spray. Avoid contact with skin, eyes and clothing.

6.1.2. For rescuers
Use personal protective equipment.

6.2. Environmental protection measures
Prevent release into water / drains / sewers or permeable soils with suitable dams. In case of release into the environment, inform the Administration of the local Country for Civil Protection and Disaster Relief.

6.3. Methods and material for containment and cleaning up

6.3.1. To hold back
Spill the dam if it does not pose a risk.

6.3.2. For cleaning
Absorb the product with inert material (absorbent, sand), collect it in special containers and hand it over to an authorized waste collector. Clean the contaminated area with plenty of water. Ventilate the space. Avoid discharge into drains, watercourses, basements or enclosed spaces.

6.3.3. Other information
No information.

6.4. Reference to other sections
See also sections 8 and 13.

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

7.1.1. Protective measures
Fire prevention measures
Ensure good ventilation.

Measures to prevent the formation of aerosols and dust:
Provide local extraction (ventilation), where there is a possibility of inhalation of vapors and aerosols.

Environmental protection measures:
Do not empty into drains, surface water or soil. Close the package tightly immediately after use.

7.1.2. Tips on general occupational hygiene
Do not eat, drink or smoke during work. Do not breathe vapor / spray. Take care of personal hygiene (washing hands before breaks and at the end of work). Avoid contact with skin, eyes and clothing. Remove contaminated clothing and clean before reuse. Wear personal protective equipment; see Section 8.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1. Technical measures and storage conditions

Keep away from food, drink and animal feedingstuffs. Store in a cool, dry and well-ventilated place.

7.2.2. Packaging materials
Store only in the original packaging.

7.2.3. Requirements for storage rooms and vessels
Close open containers tightly after use and place upright to prevent leakage / spillage. Do not store in unlabelled packaging.

7.2.4. Storage class
Storage class: 8B

7.2.5. Additional information on storage conditions
-

7.3. Special end uses
Recommendations
-
Industry-specific solutions
-

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Monitoring parameters

8.1.1. Occupational exposure limits

Name (CAS)	Limit values		Kratkotrajna izpostavljenost		Notes	Biological limit values
	Ml/m3 (ppm)	Mg/m3	Ml/m3 (ppm)	Mg/m 3		
2- (2-butoxyethoxy) ethanol (butyldiethylene glycol) (112-34-5)	10	67,5	15	101,20	Y, EU2	
potassium hydroxide (1310-58-3)		2				
potassium hydroxide (1310-58-3)	0	2				

8.1.2. Information on monitoring procedures
SIST EN 482: 2012 + A1: 2016 Occupational exposure - General requirements for measurements of chemical agents. SIST EN 689: 2018 + AC: 2019 Occupational exposure - Measurement of inhalation exposure to chemical agents - Occupational exposure testing strategy for occupational exposure (including AC correction).

8.1.3. DNEL / DMEL values
For ingredients

Name	type	route of exposure	duration of exposure	value	Notes
potassium hydroxide (1310-58-3)	worker	inhalation	long-term (local effects)	1 mg / m2	

potassium hydroxide (1310-58-3)	consumer	inhalation	long-term (local effects)	1 mg / m2	

8.1.4. PNEC values
No information.

8.2. Exposure controls

8.2.1. Appropriate technical and technological control

Measures related to the substance / mixture to prevent exposure during identified uses
Do not breathe vapors / aerosols. Take care of personal hygiene - wash your hands before breaks and after work. Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke during work. Avoid contact with skin, eyes and clothing. Personal protective equipment is only required in the case of large packages (packages not suitable for households). Follow the recommendations on the product label for general consumer use.

Organizational measures to prevent exposure
Remove contaminated clothing immediately and clean before reuse. Provide eyewash and water showers.

Technical measures to prevent exposure
Provide good ventilation and local extraction in places with increased concentration. Keep away from food, drink and animal feedingstuffs.

8.2.2. Personal protective equipment

Eye and face protection
Wear tight-fitting safety goggles and / or face shield (SIST EN 166: 2002).

Hand protection
Protective gloves (SIST EN ISO 374-1: 2017 / A1: 2018). The penetration time is determined by the manufacturer of the protective gloves and must be observed. Follow the manufacturer's instructions for use, storage, maintenance and replacement of gloves. When damage or the first signs of wear appear, the gloves must be replaced immediately. The choice of suitable gloves depends not only on the material but also on other quality criteria that differ from manufacturer to manufacturer.
Material: nitrile and polyurethane. Thickness: min. 0.23 mm. Breakthrough time: min. 480 min.
Material: latex. Thickness: min. 0.40 mm. Breakthrough time: min. 480 min.

Skin protection
Cotton protective work clothing and footwear covering the entire foot (SIST EN ISO 20345: 2012). Wear chemically resistant clothing (SIST EN ISO 6530: 2005) and boots (SIST EN ISO 20345: 2012) in case of more intense exposure.

Respiratory protection
In case of insufficient ventilation, wear respiratory protection. Wear suitable respiratory respirator (SIST EN 136: 1998 / AC: 2004) with combined filter A2-P2 (SIST EN 14387: 2004 + A1: 2008). For dust / gas / vapor concentrations above the applicable filter limit, for oxygen concentrations below 17% or in unclear conditions, use self-contained closed-circuit breathing apparatus according to SIST EN 137: 2006, SIST EN 138: 1996.

Thermal hazard
-

8.2.3. Environmental exposure controls
Technical measures to prevent exposure
Avoid release to waterways, sewers or groundwater.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Information on basic physical and chemical properties	Value / Unit / Method
State of matter	liquid
Color	Orange
Smell	characteristic

Information relevant to human health, safety and the environment

pH	ca. 11 at 20 ° C, conc. 1%
melting point / freezing point	No information
initial boiling point and boiling range	No information
flash point	No information
evaporation rate	No information
flammability (solid, gaseous)	No information
vapor pressure	No information
vapor density	No information
relative density	Density: 1 g/cm3 pri 20°C
solubility	water: soluble
Partition coefficient	No information
Auto-ignition temperature	No information
Decomposition temperature	No information
Viscosity	No information
Explosive properties	No information
Oxidizing properties	No information

9.2. Other information
-

SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity
-

10.2. Chemical stability
Stable under normal use and in accordance with operating / handling / storage instructions (see Section 7).

10.3. Possibility of hazardous reactions
-

10.4. Conditions to avoid
Follow the instructions for use and storage.

10.5. Incompatible materials
Acids. Do not mix with other chemicals (detergents, cleaners).

10.6. Hazardous decomposition products
No hazardous decomposition products are expected under normal use. Burning / explosion releases gases that pose a health hazard.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

(a) Acute toxicity

Name	route of exposure	type	species	Time	value	method	Notes
potassium hydroxide (1310-58-3)	orally	LD50	Rat		273 mg/kg		RTECS
More information: Not classified as acutely toxic.							

(b) Skin corrosion / irritation

Name	route of exposure	Time	Result	method	Notes
potassium hydroxide (1310-58-3)			Corrosive		
More information: Causes severe skin burns and eye damage.					

(c) Serious eye damage / irritation

Name	route of exposure	Time	Result	method	Notes
potassium hydroxide (1310-58-3)			Verry Corrosive		
More information: Causes severe skin burns and eye damage.					

(d) Respiratory or skin sensitization

Name	route of exposure	Type	Time	Result	method	Notes
potassium hydroxide (1310-58-3)				Does not cause hypersensitivity.		
	More information: Causes severe skin burns and eye damage.					

(e) Mutagenicity (for germ cells)

Name	type	species	Time	Result	method	Notes
potassium hydroxide				Not mutagenic.		

(1310-58-3)						

(f) Carcinogenicity

Name	route of exposure	Type	Time	Result	method	Notes
potassium hydroxide (1310-58-3)				It is not carcinogenic.		

(g) Reproductive toxicity

Name	route of exposure	Type	Time	Result	method	Notes
potassium hydroxide (1310-58-3)				Not reproductively toxic.		

Summary of CMR property evaluation
The chemical is not classified as carcinogenic, mutagenic or toxic to reproduction.

(h) STOT - single exposure

Name	Route of exposure	type	Species	Time	organ	Value	Result	Method	Notes
For the product	inhalation	-							
potassium hydroxide (1310-58-3)	-	-	Not classified as toxic						
Additional information: STOT SE (single exposure): not classified									

(i) STOT - repeated exposure

Name	Route of exposure	type	Species	Time	organ	Value	Result	Method	Notes
For the product	inhalation	-							
potassium hydroxide (1310-58-3)	-	-	Not classified as toxic						
More information: STOT RE (repeated exposure): not classified.									

(j) Aspiration hazard (aspiration hazard)

Name	result	method	Notes
For the product			
More information: Aspiration toxicity: Not classified.			

SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Acute (short-term) toxicity
For ingredients

Ingredient (CAS)	Type	Value	Exposure time	Type	Organism	Method	Notes
potassium hydroxide (1310-58-3)	LC 50	80 mg / L	96 h	fish	*Gambusia affinis*	IUCLID	

12.1.2. Chronic (long-term) toxicity
For ingredients

Ingredient (CAS)	Type	Value	Exposure time	Type	Organism	Method	Notes
potassium hydroxide (1310-58-3)	NOEC	56 mg / L	96 h	fish			

12.2. Persistence and degradability

12.2.1. Abiotic degradation, physical and photochemical disposal
No information.

12.2.2. Biodegradability
For ingredients

Ingredient (CAS)	species	rate	Time	The result	method	Notes
potassium hydroxide (1310-58-3)	-			Not biodegradable		

12.3. Ability to accumulate in organisms

12.3.1. Partition coefficient
For ingredients

Ingredient (CAS)	medium	value	Temperature	pH	Concentration	method
potassium hydroxide (1310-58-3)	Octanol-water (log Pow)	0.65				

12.3.2. Bioconcentration factor (BCF)
For ingredients

Ingredient (CAS)	species	organism	value	Duration	Result	method	Notes
potassium hydroxide (1310-58-3)	bioaccumulation	* * no_trans (69975) **					

12.4. Mobility in soil

12.4.1. Known or predicted distribution to parts of the environment
No information.

12.4.2. Surface tension
No information.

12.4.3. Adsorption / desorption

For ingredients

Ingredient (CAS)	species	Criterion	value	The result	method	Notes
potassium hydroxide (1310-58-3)	water			soluble		

12.5. Results of PBT and vPvB assessment
No rating made.

12.6. Other adverse effects
No information.

12.7. More information
For the product
Do not allow to enter ground water, water course or sewage system. The preparation is not classified as dangerous for the environment.

For ingredients

Substance: potassium hydroxide
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1. Waste management methods

13.1.1. Disposal of products / packaging
Removal of product residues
Dispose of to an authorized hazardous waste collector / disposer / processor. Prevent spillage / spillage or leakage into drains / sewers.

Waste numbers / waste codes according to the waste list (LoW)
06 02 99 - Other wastes of this kind

Packaging
Uncleaned packaging is hazardous waste - treat it in the same way as a waste product. Dispose of completely emptied packaging to an authorized packaging waste management company.

Waste numbers / waste codes according to the waste list (LoW)
15 01 02 - plastic packaging

13.1.2. Data related to waste management
-

13.1.3. Data related to sewage disposal
-

13.1.4. Other disposal recommendations
-

SECTION 14. TRANSPORT INFORMATION

14.1. UN number
not relevant

14.2. Proper UN shipping name

ADR, RID, IMDG, ADN, IATA: Not classified as dangerous goods in accordance with the regulations on the transport of dangerous goods.

14.3. Transport hazard classes
not relevant

14.4. Packaging group
not relevant

14.5. Environmental hazards
NO

14.6. Special precautions for user
not relevant

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code
not relevant

SECTION 15. REGULATORY INFORMATION

15.1. Substance / mixture specific health, safety and environmental regulations / legislation
Regulation (EC) No Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency and amending Directive 1999/45 / EC and repealing Council Regulation (EEC) No 2454/93 793/93 and Commission Regulation (EC) No 1488/94 and Council Directive 76/769 / EEC and Commission Directives 91/155 / EEC, 93/67 / EEC, 93/105 / EC and 2000/21 / EC (amendment of Commission Regulation (EU) No 830/2015) - with amendments

Regulation (EC) No Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548 / EEC and 1999/45 / EC and amending Regulation (EC) No 1234/2007 1907/2006 - as amended

Chemicals Act / ZKem /

Decree on waste (Official Gazette of the Republic of Slovenia, No. 37/15 and 69/15)

Decree on the management of packaging and packaging waste (Official Gazette of the Republic of Slovenia, No. 84/06, 106/06, 110/07, 67/11, 68/11 - amended, 18/14, 57/15, 103/15 , 2/16 - corr., 35/17, 60/18 and 68/18)

Decision on the publication of Annexes A and B to the European Agreement concerning the International Carriage of Dangerous Goods by Road / ADR /

Rules on the protection of workers from the risks related to exposure to chemical substances at work (Official Gazette of the Republic of Slovenia, Nos. 100/01, 39/05, 53/07, 102/10, 43/11 - ZVZD-1, 38/15, 78 / 18 in 78/19)

Rules on the protection of workers from the risks related to exposure to carcinogens or mutagens (Official Gazette of the Republic of Slovenia, Nos. 101/05, 43/11 - ZVZD-1, 38/15 and 79/19)

NoDecree.33/18)on the implementation of the Regulation (EU) on personal protective equipment (Official Gazette of the Republic of Slovenia,

List of harmonized standards for personal protective equipment (C 412 / 11.12.2015, with all amendments)

Occupational Safety and Health Act (Official Gazette of the Republic of Slovenia No. 43/2011)

15.1.1. Information according to Directive 2004/42 / EC on the limitation of emissions of volatile organic compounds (HOS guideline)
not relevant

15.1.2. Special instructions
Observe regulations on employment and protection against hazardous substances for young people, pregnant women and nursing mothers.

15.2. Chemical safety assessment
A supplier has not performed a chemical safety assessment for this substance / mixture.

SECTION 16. OTHER INFORMATION

Changes to the safety data sheet
-

Abbreviations and acronyms
ADN = European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR = Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute toxicity assessment
BCF = Bioconcentration factor
CAS = Characteristic number of substances already detected according to the International Chemical Abstract Service
CEN = European Committee for Standardization

CLP = Regulation on Classification, Labeling and Packaging of Substances and Mixtures; Regulation (EC) No 1272/2008
CMR = Substance which is carcinogenic, mutagenic or toxic to reproduction
CSA = Chemical Safety Assessment
CSR = Chemical Safety Report
DMEL = Derived level with minimal effect
DNEL = Derived level without effect
DSD = Dangerous Substances Directive 67/548 /
EEC ECHA = European Chemicals Agency
EINECS = European list of chemical substances on the market
ELINCS = European list of new substances
EN = European standard
EQS = EC Environmental Quality
Standard = European Community
EU = European Union
EWC = European waste catalog (replaced by LoW - see below) GES = General exposure scenario
GHS = Globally Harmonized System
IATA = International Air Transport Association
ICAO-TI = Technical Guidelines for the Safe Air Transport of Dangerous Goods
IMDG = International Code for the Carriage of Dangerous Goods by Sea
IMSBC = International Code for the Carriage of Solid Bulk Cargoes by Sea IUCLID = Unified International Chemicals Database
IUPAC = International Union of Pure and Applied Chemistry
Kow = Octanol / Water Partition Coefficient
LC50 = Lethal concentration for 50% of the test population
LD50 = Lethal dose for 50% of the test population (average lethal dose) LoW = Waste list (see http://ec.europa.eu/environment/waste/framework/list.htm)
OC = Working conditions
OECD = Organization for Economic Co-operation and Development
OEL = Occupational Exposure Limit CoR = Sole Representative
OSHA = European Agency for Safety and Health at Work
PBT = Persistent substances that accumulate in organisms and are toxic
PEC = Predicted concentration with effect
PNEC = Predicted No Effect Concentration (s)
PPE = Personal Protective Equipment
R and O = Classification and labeling Regulation (EC) No
REACH = Registration, evaluation, authorization and restriction of chemicals 1907/2006
RID = Regulations concerning the International Carriage of Dangerous Goods by Rail
RIP = REACH Implementation Project
RMM = Risk management measure
SCBA = Closed breathing apparatus
SIEF = Substance Information Exchange Forum
STOT = Specific target organ toxicity
SVHC = Substance of very high concern
EC number = EINECS and ELINCS number (see also EINECS and ELINCS)
BW = Body weight
OJ = Official Journal
SDS = Safety Data Sheet
vPvB = A substance that is very persistent and very bioaccumulative

Safety data sheet sources

Product ingredient safety data sheets.

List of relevant H phrases

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.

The information provided relates to the current state of our knowledge and experience and relates to the product in the condition in which it is supplied. The purpose of the information is to describe our product in terms of safety requirements. The indications do not constitute any guarantee of the product's characteristics in legal terms. It is the customer's own responsibility to know and comply with the legal provisions regarding the transport and use of the product. Product properties are described in the technical information.

SAFETY DATA SHEET

Universal ultrasonic cleaning powder Part No.: AS-UCP powder

Section 1: Identification of the substance/mixture and company/undertaking

PRODUCT NAME: ASonic universal cleaning powder for ultrasonic baths

Manufacturer:
ASONIC d.o.o.
Tržaška cesta 134
1000 Ljubljana
Slovenia
Tel: +386.41.566618
e-mail: order@asonic.si

INTERNAL ID: AS-UCP-100g; AS-UCP-250g; AS-UCP-2000g
APPLICATION: General Cleaning and Degreasing in ultrasonic cleaners

Section 2: Hazards identification

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE:
Classification (EC 1272/2008):
Physical and Chemical Hazards: Not classified
Human health: Not classified
Environment: Not classified
Classification (1999/45/EEC): Not classified
The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16

LABEL ELEMENTS:
Label In Accordance With (EC) No. 1272/2008
No pictogram required

Precautionary Statements:
P102 Keep out of reach of children.
P305 IF IN EYES:
P351 Rinse cautiously with water for several minutes.

P313 Get medical advice/attention.

Supplemental label information
EUH210 Safety data sheet available on request.

Other hazards: None known.

Section 3: Composition/information on ingredients

Mixtures:

ETHANEDIOL < 2%
CAS-No.: 107-21-1, EC No.: 203-473-3
Classification (EC 1272/2008) Acute Tox. 4 - H302
Classification (67/548/EEC) Xn; R22

SODIUM LAURYL SULPHATE BP 2-3%
CAS-No.: 151-21-3, EC No.: 205-788-1
Classification (EC 1272/2008) Flam. Liq. 2 - H225
Acute Tox. 4 - H302 Acute Tox. 4 - H332
Skin Irrit. 2 - H315
Eye Dam. 1 - H318
STOT Single 3 - H335
Classification (67/548/EEC)
Xn; R20/22
Xi;R37/38, R41
F; R11

TRISODIUM PHOSPHATE (ANHYDROUS) 5-10%
CAS-No.: 7601-54-9, EC No.: 231-509-8

Classification (EC 1272/2008) Skin Irrit. 2 - H315
Eye Irrit. 2 - H319
STOT Single 3 - H335
Classification (67/548/EEC)
Xi; R36/37/38.
The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16

Section 4: First aid measures

General information: CAUTION! First aid personnel must be aware of own risk during rescue! Contact physician if discomfort continues.
Inhalation: Move the exposed person to fresh air at once.
Ingestion: Immediately rinse mouth and drink plenty of water (200-300 ml). Get medical attention if any discomfort continues.
Skin contact: Remove contaminated clothes and rinse skin thoroughly with water. Get medical attention if Irritation persists after washing.
Eye contact: Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention promptly if symptoms occur after washing.

Most important symptoms and effects, both acute and delayed:
Inhalation: No specific symptoms noted.
Ingestion: No specific symptoms noted.
Skin contact: Powder may irritate the skin.
Skin irritation: /
Eye contact: May cause temporary eye irritation.

Indication of any immediate medical attention and special treatment needed:
No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

Section 5: Fire-fighting measures

Extinguishing media: Extinguishing media Water spray.

Special hazards arising from the substance or mixture:

Specific hazards In case of fire, toxic gases may be formed.

Advice for firefighters: Protective equipment for fire fighters.

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:
Avoid inhalation of dust. Avoid contact with skin and eyes. For personal protection, see section 7 and 8.

Environmental precautions
Avoid discharge into drains, watercourses or onto the ground.

Methods and material for containment and cleaning up:
Avoid generation and spreading of dust. Avoid dust formation. Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into closed container. Wash down with water. Dispose as normal detergent waste.

Reference to other sections:
Wear protective clothing as described in Section 8 of this safety data sheet. See section 11 for additional information on health hazards. Collect and dispose of spillage as indicated in section 13.

Section 7: Handling and storage

Precautions for safe handling: Avoid inhalation of dust and contact with skin and eyes. Take care when opening bulk powder.

Mix with small quantity of water first to minimise aerosol effect. Ventilate well. Static electricity and formation of sparks must be prevented. Wear protective clothing as described in Section 8 of this safety data sheet. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site. Do not eat, drink or smoke when using the product.

Conditions for safe storage, including any incompatibilities: Store in tightly closed original container in a dry, cool and well-ventilated place.

Specific end use(s): The identified uses for this product are detailed in Section 1.2.

Usage Description: 5-year shelf life.

From the data on storage duration in this safety data sheet no agreed statement regarding the warrantee of application properties can be deduced.

Section 8: Exposure controls/personal protection

Control parameters:

Name	STD	TWA - 8 Hrs.	STEL - 15 Min	Notes
ETHANEDIOL	WEL	52 mg/m3 (Sk)	104 mg/m3 (Sk)	

WEL = Workplace Exposure Limit.
Exposure controls:
Protective equipment:


Engineering measures: Provide adequate general and local exhaust ventilation.
Respiratory equipment: If ventilation is insufficient, suitable respiratory protection must be provided.
Hand protection: The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.
Eye protection: Wear approved, tightly fitting safety glasses where splashing is probable. EN166
Other Protection: Provide eyewash station.
Hygiene measures: When using do not eat, drink or smoke. Good personal hygiene is necessary. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash hands after contact. Wash hands after handling. Wash contaminated areas with water and soap before leaving the work site. Use appropriate skin cream to prevent drying of skin.
Skin protection: Wear apron or protective clothing in case of contact.
Environmental Exposure Controls: Avoid release to the environment. Users should be aware of environmental considerations and their duties under the environmental protection act.

Section 9: Physical and chemical properties

Information on basic physical and chemical properties:
Appearance Powder, dust
Colour Pale Blue/White
Solubility Miscible with water (flocculation may occur <15ºC)
Initial boiling point and boiling range 100
Vapour pressure Not applicable
pH >11.0 in 2.5% solution @20ºC
Explosive properties Not applicable
Other information: Not available. Not determined.

Section 10: Stability and reactivity

Reactivity: Do not mix with acids (alkaline solution)
Chemical stability: Stable under normal temperature conditions and recommended use
Possibility of hazardous reactions: Hazardous Polymerisation Will not polymerise
Conditions to avoid: Take precautionary measures against static discharges

Incompatible materials: Materials To Avoid Acids
Hazardous decomposition products: None under normal conditions

Section 11: Toxicological information

Information on toxicological effects:
Other Health Effects This substance has no evidence of carcinogenic properties.

Acute toxicity
Oral LD 50 (CAS 7758-29-4) >2000 mg/kg bw rat
Oral LD 50 (CAS 7757-82-6) >2000 mg/kg bw rat
Oral LD 50 (CAS 7601-54-9) >2000 mg/kg rat
Oral LD 50 (CAS 151-21-3) >1500 mg/kg rat
Dermal LD 50 (CAS 7758-29-4) >4640 mg/kg bw rabbit
Dermal LD 50 (CAS 151-21-3) >500 mg/kg rabbit
Inhalation LC 50 (CAS 7758-29-4) >0.39 mg/ L air 4 h rat
Inhalation LC 50 (CAS 7757-82-6) >2.4 mg/ L air 4 h rat.
Inhalation LC 50 (CAS 7601-54-9) >0.83 mg/ L air 4 h rat
Inhalation LC 50 (CAS 151-21-3) >3, 900 mg/m3 1 h rat

Respiratory or skin sensitization: Not available

Germ cell mutagenicity:
Genotoxicity- In vitro: Not available
Genotoxicity- In vivo: Not available
Carcinogenicity: Not available

Reproductive Toxicity:
Reproductive Toxicity – Fertility: Not available
Specific Target Organ Toxicity – single ex.: Not available
Specific Target Organ Toxicity – repeated ex.: Not available
Inhalation: No specific health warnings noted
Ingestion: No specific health warnings noted
Skin contact: Powder may irritate skin
Eye contact: May cause temporary eye irritation

Section 12: Ecological information

Eco toxicity: The product is not expected to be hazardous to the environment.

Toxicity:
Acute Toxicity Fish (CAS 7758-29-4) 24 h LC50 >1850 mg/l basis for effect mortality
Acute Toxicity Fish (CAS 7757-82-9) 48 h LC50 >7960 mg/l basis for effect mortality
Acute Toxicity Fish (CAS 151-21-3) 96h LC50 29 mg/l basis for effect mortality
Acute Toxicity Aquatic Invertebrates (CAS 7758-29-4) Daphnia magna 48 h EC 50 >100 mg/l
Acute Toxicity Aquatic Invertebrates (CAS 7757-82-6) Daphnia magna 48 h EC50 4736 mg/l
Acute Toxicity Aquatic Invertebrates (CAS 151-21-3) Ceriodaphnia dubia 48 h LC 50 5.55 mg/l
Acute Toxicity Aquatic Invertebrates (CAS 7601-54-9) Daphnia magna 48 h EC 50 276.61 mg/l
Acute Toxicity-Aquatic Plants (CAS 7758-29-4) Algae 7 d EC 50>900 mg/l basis for effect growth rate
Acute Toxicity-Aquatic Plants (7757-82-6) Algae 120h EC 50 1900mg/l
Acute Toxicity-Aquatic Plants (151-21-3) Algae 72 h EC 50 >120 basis for effect growth rate
Acute Toxicity-Microorganisms (CAS 7757-82-6) NOEC 37 d 26 mg/l bacteria in activated sludge
Chronic Toxicity - Fish Early life Stage: Scientifically unjustified
Chronic Toxicity - Aquatic Invertebrates: Scientifically unjustified
Acute Toxicity – Terrestrial: Scientifically unjustified

Persistence and degradability:
Degradability: There are no data on the degradability of this product. The surfactants contained in this preparation complies (comply) with the biodegradability criteria as laid down in Regulation (EU) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.
Bio accumulative potential: No data available on bioaccumulation
Mobility in soil The product is soluble in water
Results of PBT and vPvB assessment: No data available
Other adverse effects: None known

Section 13: Disposal considerations

General information Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

Waste treatment methods: Dispose of waste and residues in accordance with local authority requirements. Board packaging is recyclable.

Section 14: Transport information

General: The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).
UN number: Not applicable
UN proper shipping name: Not applicable
Transport hazard class (es): Not applicable
Packing group: Not applicable

Environmental hazards:
Environmentally Hazardous
Substance/Marine Pollutant: No

Section 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture:
UK Regulatory References: Health and Safety at Work Act 1974. The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments. Chemicals (Hazard Information & Packaging) Regulations.
Statutory Instruments: The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716). Control of Substances Hazardous to Health.
Approved Code Of Practice: Safety Data Sheets for Substances and Preparations. Classification and Labeling of Substances and Preparations Dangerous for Supply.
Guidance Notes: Workplace Exposure Limits EH40. CHIP for everyone HSG (108). Introduction to Local Exhaust Ventilation HS (G) 37.
EU Legislation: Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.
Dangerous Substance Directive 67/548/EEC. Dangerous Preparations Directive 1999/45/EC.
National Regulations: The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002. No. 1689. Workplace Exposure Limits 2005 (EH40) Health and Safety at Work Act (As Amended) 1974 Control of Substances Hazardous to Health Regulations 2002 (as amended)
Chemical Safety Assessment: No chemical safety assessment has been carried out.
Note: The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions, which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

Section 16: Other information

Issued By HS&E Manager
Revision Date 17/09/2015
Revision 11
Supersedes date 20/05/2013
Safety Data Sheet Status Approved

Risk Phrases In Full:
R20/22 Harmful by inhalation and if swallowed
R22 Harmful if swallowed.
R11 Highly flammable
R36/37/38 Irritating to eyes, respiratory system and skin
R37/38 Irritating to respiratory system and skin
NC Not classified
R41 Risk of serious damage to eyes
Hazard Statements In Full
H318 Causes serious eye damage
H319 Causes serious eye irritation
H315 Causes skin irritation
H332 Harmful if inhaled
H302 Harmful if swallowed
H225 Highly flammable liquid and vapour
H335 May cause respiratory irritation

Legal disclaimer:
The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. It does not comprise technical or performance specification for this product The above information is based on the present state of our knowledge at the time of publication and is intended solely as a general guide to the health, safety and environmental implications of this product for handling and disposal during general use.
It does not replace the users own assessment of suitability for their purposes and of workplace risk as required by Health and Safety legislation. It is given in good faith and no warranty is implied with respect to the quality or specification of the product. Rapidex ltd shall not be held liable for any damage resulting from handling or from contact with the above product. The user must satisfy themselves that the product is entirely suitable for their purpose. Due to the diverse applications for this product, Rapidex ltd cannot accept liability for damage of any nature, resulting from the use of this product.

SAFETY DATA SHEET

Ultrasonic cleaning solution for oxygenated breathing apparatus Part No.: AS-BIOX solution

Section 1: Identification of the substance/mixture and company/undertaking

PRODUCT NAME: Ultrasonic cleaning solution for oxygenated breathing apparatus

Manufacturer:
ASONIC d.o.o.
Tržaška cesta 134
1000 Ljubljana
Slovenia
Tel: +386.41.566618
e-mail: order@asonic.si

INTERNAL ID: AS-BIOX-1, AS-BIOX-5
APPLICATION: General Cleaning and Degreasing in ultrasonic cleaners
CONTAINER SIZE: 1 litre, 5 liters

Section 2: Hazards identification

Non-classified. Not regarded as a health or environmental hazard under current legislation.

Section 3: Composition/information on ingredients

Contains no ingredients classified as hazardous under current legislation.

Section 4: First aid measures

Inhalation: Non Hazardous.
Ingestion: Drink plenty of water.
Skin contact: Rinse affected area with water.
Eye contact: Rinse thoroughly with water

Section 5: Fire-fighting measures

EXTINGUISHING MEDIA: Non-Flammable. Use extinguishing media appropriate for surrounding fire.

Section 6: Accidental release measures

SPILL CLEANUP METHOD: Stop leak if possible, without risk. Sluice to waste using plenty of cold water through normal sewage system.

Section 7: Handling and storage

Store conventionally in closed containers, keep in original container. Don't store below 4°C.

Section 8: Exposure controls/personal protection

Ingredient Comments: For prolonged or repeated contact. protection of the skin may be necessary.
Protective equipment:


Ventilation: Provide adequate general and local ventilation.
Eye Protection: Wear approved chemical safety goggles where eye exposure is reasonably probable.
Other Protection: Wear appropriate clothing to prevent any long-term skin exposure.

Section 9: Physical and chemical properties

Appearance: Almost neutral liquid
Colour: Yellowish
Odour: Slight organic odour
Chemical properties: Aquanaut solution pH2.2

Section 10: Stability and reactivity

STABILITY: Stable under normal conditions.
CONDITIONS TO AVOID: May react strongly with Sodium Nitrate (NaNO2). It is however possible to use sodium nitrate in small quantities in rinsing water.

Section 11: Toxicological information

Health Warnings: Non-Toxic.
Inhalation: Non Hazardous / Low VOC.
Eyes: May cause transient superficial eye irritation.
Ingestion: Ingestion Non Hazardous.
Skin: Prolonged or repeated contact may lead to drying of skin.
Route Of Entry: Ingestion, Inhalation, Skin and/or eye contact.

Section 12: Ecological information

Ecological information: The surfactants conform to EC biodegradability Legislation. Not regarded as dangerous to the environment.

Section 13: Disposal considerations

Disposal Methods: Observe rules of local authority. Thames Water approval for sewer disposal. Add Sodium Bicarbonate, NaHC03 (Baking Soda. 6% raises pH to 5.5, 9% raises pH to 7.0)

Section 14: Transport information

General Transportation: Not dangerous for carriage.
Rail Transport Notes: Not Classified.
Marine Pollutant: No.
Sea Transport Notes: Not Classified
Air Transport Notes: Not Classified

Section 15: Regulatory information

Risk Phrases: Not classified
Labeling: (77/728)EEC

Section 16: Other information

After use rinse and dry hands thoroughly. People with sensitive or damaged skin should avoid prolonged contact.
Revised 10th edition

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This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.