

The safety data sheet complies with Commission Regulation (EU) 878/2020 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) .

SAZEX

| | | | |
|---------------|--------------------|---------|----|
| Creation date | 22nd October 2003 | Version | 19 |
| Revision date | 20th December 2022 | | |

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

1.1. Product identifier SAZEX
Substance / mixture mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against
Mixture's intended use

Remover of soot and deposits from flue gases
Industrial alkaline degreaser

The use descriptors

IS Use at industrial sites
PW Widespread use by professional workers

Mixture uses advised against

The product should not be used in ways other than those referred in Section 1.

1.3. Details of the supplier of the safety data sheet

Supplier

| | |
|-----------------------------|--|
| Name or trade name | NOVATO |
| Address | Uralská 770/6, Praha, 160 00 Czech Republic |
| Identification number (CRN) | 62910370 |
| VAT Reg No | CZ62910370 |
| Phone | +420 233 339 688 |
| E-mail | petr.johanides@novato.cz |
| Web address | www.novato.cz |

Competent person responsible for the safety data sheet

| | |
|--------|----------------|
| Name | ABITEC |
| E-mail | info@abitec.cz |

1.4. Emergency telephone number

European emergency number: 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification of the mixture in accordance with Regulation (EC) No 1272/2008

The mixture is classified as dangerous.

Flam. Liq. 2, H225
Skin Corr. 1B, H314
Eye Dam. 1, H318

Most serious adverse physico-chemical effects

Reacts violently with acids and oxidizing agents. Contains an ingredient that can corrode metals. Imperfect thermal decomposition at high temperatures may release dangerous gases. Avoid inhalation.

Most serious adverse effects on human health and the environment

The concentrated mixture is corrosive with a very high pH. Even in diluted form, it can cause severe irritation or even damage to the eyes (redness, burning in the eyes, tearing, inflammation, damage to the cornea, in extreme cases, loss of vision) and skin (redness, disruption, chemical burns). Inhalation of the sprayed mixture or mist can cause severe irritation of the respiratory tract, coughing, burning of the respiratory system, even burns of the respiratory tract. Ingestion may cause irritation or damage to the digestive tract, abdominal pain. Ensure against confusion with drinks. The mixture is not classified as toxic to aquatic organisms. Leakage of the concentrated mixture may change the pH of the aquatic environment. The mixture must not get into the soil, underground or surface water or sewage system. Follow the instructions for use to avoid risks to people and the environment. The full wording of the classification and H phrases is given in Sect. 16 of this safety data sheet.

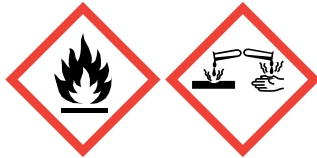
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2.2. Label elements

Hazard pictogram



Signal word

Danger

Hazard statements

| | |
|------|--|
| H225 | Highly flammable liquid and vapour. |
| H314 | Causes severe skin burns and eye damage. |
| H318 | Causes serious eye damage. |

Precautionary statements

| | |
|----------------|--|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P260 | Do not breathe mist and vapours. |
| P280 | Wear protective gloves/protective clothing/eye 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. |
| 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 doctor. |
| P501 | Dispose of contents/container to in accordance with local regulations. |

2.3. Other hazards

Neither the mixture nor its components meet the criteria for persistent, bioaccumulative and toxic or highly persistent and highly bioaccumulative substances in accordance with Annex XIII, nor have they been included in the list drawn up in accordance with Article 59, paragraph 1, due to the content of endocrine disruptors , nor has it been determined as a substance with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture.

Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment

| Identification numbers | Substance name | Content in % weight | Classification according to Regulation (EC) No 1272/2008 | Note |
|--|---------------------|---------------------|---|------|
| CAS: 109-87-5 EC: 203-714-2 | dimethoxymethane | <6 | Flam. Liq. 2, H225 | |
| Index: 019-002-00-8 CAS: 1310-58-3 EC: 215-181-3 Registration number: 01-2119487136-33 | potassium hydroxide | 2-<5 | Met. Corr. 1, H290 Acute Tox. 4, H302 Skin Corr. 1A, H314 Specific concentration limit: Skin Corr. 1A, H314: C ≥ 5 % Skin Corr. 1B, H314: 2 % ≤ C < 5 % Eye Irrit. 2, H319: 0.5 % ≤ C < 2 % Skin Irrit. 2, H315: 0.5 % ≤ C < 2 % | 1 |

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| Identification numbers | Substance name | Content in % weight | Classification according to Regulation (EC) No 1272/2008 | Note |
|--|---|---------------------|---|---------|
| Index: 603-117-00-0 CAS: 67-63-0 EC: 200-661-7 | propan-2-ol | <2 | Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 Specific concentration limit: Eye Irrit. 2, H319: C ≥ 10 % STOT SE 3, H336: C ≥ 20 % | 1 |
| CAS: 68439-51-0 EC: 614-484-1 | Ethoxylated alcohols C12-14, ethoxylated propoxylated | <1 | Aquatic Chronic 3, H412 Specific concentration limit: Aquatic Chronic 3, H412: C ≥ 25 % | |
| Index: 603-001-00-X CAS: 67-56-1 EC: 200-659-6 | methanol | <0,25 | Flam. Liq. 2, H225 Acute Tox. 3, H301+H311+H331 STOT SE 1 (**), H370 Specific concentration limit: STOT SE 1, H370: C ≥ 10 % STOT SE 2, H371: 3 % ≤ C < 10 % | 1, 2, 3 |

Notes

- ** another exposure route cannot be ruled out
 - 1 A substance for which exposure limits are set.
 - 2 Substance for which biological limit values exist.
 - 3 The use of the substance is restricted by Annex XVII of REACH Regulation
- Full text of all classifications and hazard statements is given in the section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

In the event of health problems or in case of doubt, consult a doctor and provide him with the information from this safety data sheet. In case of skin burns, rinse with water and cover with a sterile bandage. In case of life-threatening conditions, perform resuscitation. When providing first aid, ensure the safety of the rescuer and the rescued. Place the unconscious person in a stable position on their side and do not give anything by mouth. If necessary (respiratory arrest or irregular breathing), perform artificial respiration. Avoid catching cold. Do not induce vomiting. In case of spontaneous vomiting, prevent inhalation of vomitus.

If inhaled

If inhalation occurs, leave the area, stop exposure, rinse mouth with water, inhale water mist, breathe fresh air. Seek medical attention if respiratory tract irritation or mucosal irritation occurs.

If on skin

Remove affected clothing. Remove obstacles (rings, bracelets, watches, etc.) at the point of contact with the skin. Wash thoroughly with water if the skin has not been damaged with soap and treat with a regenerating cream. If symptoms of irritation, abrasion, or irritation occur, cover with a sterile dressing and seek medical attention immediately.

If in eyes

Rinse the eyes and their surroundings. If the victim wears contact lenses, remove them. Forcefully open eyes should be flushed from the inner corner of the eye towards the outer with a large amount of clean lukewarm water, especially the space under the eyelids. Rinse for at least 15 min., seek medical treatment. Continue irrigation during transport to the doctor.

If swallowed

Do not induce vomiting, rinse mouth immediately with water. Drink 2-3 glasses of cold water (if the victim is conscious and not in pain). DO NOT GIVE ACTIVATED CHARCOAL! Do not serve food or attempt neutralization. Seek medical attention immediately and present this safety data sheet.

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

If inhaled

Inhalation of the sprayed mixture or mist can cause severe irritation of the respiratory tract up to burns of the respiratory system.

If on skin

The mixture is corrosive with a very high pH. It can cause severe irritation and even damage to the eyes (redness, burning in the eyes, tearing, inflammation, damage to the cornea, in extreme cases even damage to vision) and skin (redness, itching, disruption to chemical burns).

If in eyes

The mixture is corrosive with a very high pH. It can cause severe irritation and even damage to the eyes (redness, burning in the eyes, tearing, inflammation, damage to the cornea, in extreme cases even damage to vision) and skin (redness, itching, disruption to chemical burns).

If swallowed

Ingestion may cause irritation or damage to the digestive tract, abdominal pain.

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

No immediate medical attention is necessary if the mixture is used normally and adhered to in the instructions for use. Always seek medical advice if swallowed. Following ingestion of the mixture, monitoring of the affected person for at least 24 hours is required. Special treatment is required when symptoms reach a certain degree, as indicated in paragraphs 4.1 and 4.2; is symptomatic.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Alcohol resistant foam, multipurpose powders, CO₂, water mist, shattered water stream.

Unsuitable extinguishing media

Full stream of water. Crushed water can be used to cool the containers near the fire.

5.2. Special hazards arising from the substance or mixture

Highly flammable liquid and vapor. Vapors mixed with air form an explosive mixture that is heavier than air. The mixture reacts violently with acids and oxidizing agents. Imperfect thermal decomposition at high temperatures may release dangerous gases. Avoid inhalation of decomposition products.

5.3. Advice for firefighters

In case of fire, use self-contained breathing apparatus and full-body protective suit). Remove the mixture from the fire if you can do so without risk. Extinguish the fire from a safe distance from a protected location. Cool closed containers with the mixture near the fire with water spray or cover with foam. Contaminated water after extinguishing can have a very high pH. Combustion residues and water after intervention should be disposed of as hazardous waste.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Prevent the entry of unauthorized persons, secure and isolate the escape area. Ensure sufficient ventilation of the work area, do not inhale the sprayed mixture or mist. Avoid contact with skin and eyes - use personal protective equipment. Ensure against confusion with drinks. Eliminate possible sources of ignition, do not smoke, do not expose to direct sunlight. Use non-sparking tools, avoid electrostatic charge.

6.2. Environmental precautions

Secure the area of the leak, capture the leaking mixture. Avoid release to sewers, soil, surface and ground water. In the event of a large liquid leak, monitor the NPK concentration or TLV and inform the appropriate state authorities and stream or sewer manager.

6.3. Methods and material for containment and cleaning up

Stop the leak, cover the drains. In case of a large leak, pump out the mixture. In the event of a small leak, cover with a suitable non-flammable sorbent (universal sorbent, sand, diatomaceous earth, earth, vermiculite, universal sorbent, etc.), store the used sorbent in a closable waste container, mark and dispose of it as hazardous waste. Wash the contaminated area with water.

6.4. Reference to other sections

Recommended personal protective equipment according to section 8. Dispose of unused product according to section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Ensure sufficient ventilation of the work area. Protect eyes and skin, do not inhale vapors or sprayed mixture, use personal protective equipment according to Sec. 8. Avoid confusion with drinks. The work area should be equipped with a source of drinking water.

Vapors mixed with air form an explosive mixture that is heavier than air. Avoid contact with heat sources. Prevent the formation of vapors in concentrations exceeding the highest permissible concentrations for the working atmosphere. Use non-sparking tools. Do not reuse empty containers. Do not transfer the mixture to another container. Observe the applicable health and safety legislation. Observe the principles of hygiene when working with chemicals, do not eat, drink or smoke while working. Wash your hands with warm soapy water before breaks, meals and after work. Avoid release to the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store tightly closed with the cap facing upwards in the original packaging in a cool, dry and well-ventilated place. Store away from heat sources, protect from direct sunlight, do not smoke. Prevent the formation of an electrostatic charge. Store away from food, drink and feed. The warehouse should be equipped with a source of drinking water. Store away from strong acids and oxidizing agents. Store out of reach of children. Follow the directions on the label.

| Content | Packaging type | Material of package |
|---------|----------------|---------------------|
| 25 l | jerry can | HDPE |
| 5 l | jerry can | HDPE |
| 10 l | jerry can | HDPE |
| 40 l | jerry can | HDPE |

Storage class 8A - Combustible corrosive substances

Storage temperature max. 25 °C

7.3. Specific end use(s)

not available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

The mixture contain any constituents of national exposure limits specified in Annex 2, Government Decree 361/2007 Coll., As amended or European Union for Work Environment.

Czech Republic

Government Regulation 330/2023 Coll.

| Substance name (component) | Type | Value | Note |
|--------------------------------------|-------|------------------------|--|
| potassium hydroxide (CAS: 1310-58-3) | PEL | 1 mg/m ³ | irritating to mucous membranes (eyes, respiratory system) and skin |
| | NPK-P | 2 mg/m ³ | |
| propan-2-ol (CAS: 67-63-0) | PEL | 500 mg/m ³ | irritating to mucous membranes (eyes, respiratory system) and skin |
| | PEL | 200 ppm | |
| | NPK-P | 1000 mg/m ³ | |
| | NPK-P | 400 ppm | |
| methanol (CAS: 67-56-1) | PEL | 250 mg/m ³ | skin penetration is significantly involved during exposure |

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Czech Republic **Government Regulation 330/2023 Coll.**

| Substance name (component) | Type | Value | Note |
|----------------------------|-------|------------------------|--|
| methanol (CAS: 67-56-1) | PEL | 188 ppm | skin penetration is significantly involved during exposure |
| | NPK-P | 1000 mg/m ³ | |
| | NPK-P | 751 ppm | |

European Union **Commission Directive 2006/15/EC**

| Substance name (component) | Type | Value | Note |
|----------------------------|-------------|-----------------------|------|
| methanol (CAS: 67-56-1) | OEL 8 hours | 260 mg/m ³ | Skin |
| | OEL 8 hours | 200 ppm | |

Biological limit values

Czech Republic **Decree No. 107/2017 Coll.**

| Name | Parameter | Value | Tested material | Time of sampling |
|-------------------------|-----------|-------------|-----------------|------------------|
| methanol (CAS: 67-56-1) | methanol | 15 mg/l | Urine | End of shift |
| | | 0,47 mmol/l | | |

DNEL

dimethoxymethane

| Workers / consumers | Route of exposure | Value | Effect | Value determination | Source |
|---------------------|-------------------|-------------------------|--------------------------|---------------------|--------|
| Workers | Inhalation | 126.6 mg/m ³ | Chronic effects systemic | | |
| Workers | Dermal | 17.9 mg/kg/24h | Chronic effects systemic | | |

potassium hydroxide

| Workers / consumers | Route of exposure | Value | Effect | Value determination | Source |
|---------------------|-------------------|---------------------|------------------------|---------------------|--------|
| Workers | Inhalation | 1 mg/m ³ | Acute effects systemic | | |

propan-2-ol

| Workers / consumers | Route of exposure | Value | Effect | Value determination | Source |
|---------------------|-------------------|-----------------------|--------------------------|---------------------|--------|
| Workers | Dermal | 888 mg/kg | Chronic effects systemic | | |
| Workers | Inhalation | 500 mg/m ³ | Chronic effects systemic | | |

PNEC

dimethoxymethane

| Route of exposure | Value | Value determination | Source |
|------------------------------------|-------------|---------------------|--------|
| Microorganisms in sewage treatment | 10000 mg/l | | |
| Freshwater environment | 14.577 mg/l | | |
| Marine water | 1.4577 mg/l | | |

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| dimethoxymethane | | | |
|---------------------|--------------|---------------------|--------|
| Route of exposure | Value | Value determination | Source |
| Soil (agricultural) | 4.6538 mg/kg | | |
| Freshwater sediment | 13.135 mg/kg | | |
| Sea sediments | 1.3135 mg/kg | | |

| propan-2-ol | | | |
|------------------------------------|------------|---------------------|--------|
| Route of exposure | Value | Value determination | Source |
| Water (intermittent release) | 140.9 mg/l | | |
| Marine water | 140.9 mg/l | | |
| Freshwater sediment | 552 mg/kg | | |
| Sea sediments | 552 mg/kg | | |
| Soil (agricultural) | 28 mg/kg | | |
| Microorganisms in sewage treatment | 2251 mg/l | | |

8.2. Exposure controls

Ensure sufficient ventilation, or extraction of the working space. In case of insufficient ventilation or spray application, use suitable respiratory protection. Avoid contact with skin and eyes. Ensure against confusion with drinks and food. Observe hygienic measures for working with chemicals. The work area should be equipped with drinking water sources for providing first aid. Do not eat, drink or smoke while working. Wash your hands with lukewarm water and soap before breaks, meals and after work. Adapt personal protective equipment to the nature of the work.

Eye/face protection

Tight safety glasses or a face shield.

Skin protection

For permanent work, the use of protective work clothes is suitable. Wash affected skin, remove contaminated clothing, wash before further use. Protective gloves resistant to chemicals (material e.g.: nitrile rubber, butyl rubber ≥ 0.45 mm, penetration time > 240 min. Observe the recommended penetration time of the glove material.) When choosing, follow the manufacturer's recommendations, the material must be impermeable and resistant to the components of the mixture. Test at a specific workplace before first use. Replace damaged gloves.

Respiratory protection

It is not necessary in conditions of sufficient ventilation. Avoid breathing the sprayed mixture. When exposure limits are exceeded or in a poorly ventilated environment, use a half mask with an organic vapor filter, type A or AX. In the event of an accident or long-term exposure, use self-contained breathing apparatus.

Thermal hazard

The above precautions are for use at normal temperatures. Elevated temperatures or aerosol use may require additional precautions.

Environmental exposure controls

Observe the usual environmental protection measures. Avoid release to sewers, ground and surface water and soil.

More information

Ensure compliance with governmental regulation 361/2007 Coll., Laying down the conditions for the protection of health at work, as amended, and to fulfill the obligations contained therein.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|----------------------------|
| Physical state | liquid |
| Colour | colourless |
| Odour | characteristic |
| Melting point/freezing point | data not available |
| Boiling point or initial boiling point and boiling range | 42.3 °C (Dimethoxymethane) |
| Flammability | Flammable Class II. |

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| | |
|---|--|
| Lower and upper explosion limit | |
| bottom | 2.2 % |
| upper | 19.9 % |
| Flash point | 10 °C (7% water-dimethoxymethane solution) |
| Auto-ignition temperature | data not available |
| Decomposition temperature | data not available |
| pH | 13-14 (undiluted) |
| Kinematic viscosity | data not available |
| Solubility in water | soluble |
| Partition coefficient n-octanol/water (log value) | data not available |
| Vapour pressure | data not available |
| Density and/or relative density | |
| Density | data not available |
| Relative density | 1.02 g/cm ³ at 20 °C |
| Relative vapour density | data not available |
| Particle characteristics | data not available |

9.2. Other information

| | |
|-----------------------------|--------|
| Appearance | liquid |
| VOC content: 7.5% by weight | |

SECTION 10: Stability and reactivity

10.1. Reactivity

The mixture is strongly alkaline. If the instructions for use are followed, the mixture does not show dangerous reactions.

10.2. Chemical stability

The mixture is stable under normal environmental conditions, storage and handling.

10.3. Possibility of hazardous reactions

In contact with acids or oxidizing agents, an exothermic reaction may occur. Solvent vapors are heavier than air and can form explosive mixtures when mixed with air.

10.4. Conditions to avoid

Heating, ignition, contact with open fire and sources of heat, frost.

10.5. Incompatible materials

Flammable materials, strong oxidizing agents, strong acids and bases.

10.6. Hazardous decomposition products

Under normal conditions, the mixture is not decomposed. Incomplete combustion or thermal decomposition produces toxic products of combustion (CO_x, NO_x, hydrocarbons, etc.).

SECTION 11: Toxicological information

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

The mixture meets the criteria for classification according to EC Regulation No. 1272/2008. The mixture is classified as dangerous in the sense of EC Regulation No. 1272/2008, as amended.

Acute toxicity

The mixture is not classified as acutely toxic by any way of exposure.

| dimethoxymethane | | | | | | |
|-------------------|------------------|-------------|---------------|---------|-----|--------|
| Route of exposure | Parameter | Value | Exposure time | Species | Sex | Source |
| Oral | LD ₅₀ | 6423 mg/kg | | Rat | | |
| Dermal | LD ₅₀ | >5000 mg/kg | | Rabbit | | |
| Inhalation | LC ₅₀ | 57 mg/l | 4 hours | Rat | | |

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Ethoxylated alcohols C12-14, ethoxylated propoxylated

| Route of exposure | Parameter | Value | Exposure time | Species | Sex | Source |
|-------------------|------------------|-------------|---------------|-------------------------|-----|--------|
| Oral | LD ₅₀ | >2000 mg/kg | | Rat (Rattus norvegicus) | | |

potassium hydroxide

| Route of exposure | Parameter | Value | Exposure time | Species | Sex | Source |
|-------------------|------------------|---------------|---------------|-------------------------|-----|--------|
| Oral | LD ₅₀ | 310-429 mg/kg | | Rat (Rattus norvegicus) | | 85% |
| Dermal | LD ₅₀ | 1260 mg/kg | | Rabbit | | |

propan-2-ol

| Route of exposure | Parameter | Value | Exposure time | Species | Sex | Source |
|-------------------|------------------|-------------|---------------|---------|-----|--------|
| Oral | LD ₅₀ | 4710 mg/kg | | Rat | | |
| Dermal | LD ₅₀ | 12800 mg/kg | | Rabbit | | |
| Inhalation | LC ₅₀ | >20 mg/l | 8 hours | Rat | | |

Skin corrosion/irritation

The mixture is classified as corrosive, category 1B, corrosive to skin and mucous membranes.

Serious eye damage/irritation

The mixture is classified as corrosive, category 1B, causing 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.

Toxicity for specific target organ - single exposure

Based on available data the classification criteria are not met.

Toxicity for specific target organ - repeated exposure

Based on the available data, the classification criteria are not met. Propan-2-ol: NOEC: 500 ppm (rat)

Aspiration hazard

Based on the available data, the classification criteria are not met. Inhalation of the sprayed mixture or mist may cause irritation of the respiratory tract and mucous membranes.

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11.2. Information on other hazards

It does not contain substances causing disruption of the endocrine system. Inhalation of vapors can cause headaches, fatigue, drowsiness, malaise, in extreme cases even narcotic conditions, or unconsciousness. Ingestion of liquid into the respiratory system during ingestion or aspiration of vomit during subsequent vomiting may cause bronchopneumonia or pulmonary edema. It irritates the skin (redness, itching, burning). Frequent or long-term contact with the skin causes drying or cracking of the skin or even dermatitis. Direct eye contact may cause mild short-term eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

The ecotoxic effects of the mixture were not assessed. Observe the usual environmental precautions.

Acute toxicity

| dimethoxymethane | | | | |
|------------------|-------------|---------------|-------------------------------|-------------|
| Parameter | Value | Exposure time | Species | Environment |
| LC ₅₀ | >1000 mg/l | 96 hours | Fish | |
| EC ₅₀ | >1200 mg/l | 48 hours | Invertebrates (Daphnia magna) | |
| IC ₅₀ | >10 mg/l | 72 hours | Algae | |
| NOEC | 145.77 mg/l | 30 days | Algae | |

| Ethoxylated alcohols C12-14, ethoxylated propoxylated | | | | |
|---|-----------|---------------|---------------------------------|-------------|
| Parameter | Value | Exposure time | Species | Environment |
| LC ₅₀ | 1-10 mg/l | 96 hours | Fish (Danio rerio) | |
| EC ₅₀ | 1-10 mg/l | 48 hours | Invertebrates (Daphnia magna) | |
| IC ₅₀ | 1-10 mg/l | 72 hours | Algae (Desmodesmus subspicatus) | |

| potassium hydroxide | | | | |
|---------------------|----------|---------------|----------------------------|-------------|
| Parameter | Value | Exposure time | Species | Environment |
| LC ₅₀ | 85 mg/l | 24 hours | Fish | |
| LC ₅₀ | 165 mg/l | 24 hours | Fish (Poecilia reticulata) | |

| propan-2-ol | | | | |
|------------------|----------------|---------------|-------------------------------|-------------|
| Parameter | Value | Exposure time | Species | Environment |
| LC ₅₀ | 4200 mg/l | 96 hours | Fish (Pimephales promelas) | |
| LC ₅₀ | >903 mg/l | 96 hours | Invertebrates (Daphnia magna) | |
| LC ₅₀ | 8970-9280 mg/l | 48 hours | Fish (Leuciscus idus) | |
| EC ₅₀ | >100 mg/l | 48 hours | Invertebrates (Daphnia magna) | |

12.2. Persistence and degradability

Surfactants are biodegradable in accordance with EC Regulation No. 648/2004 on detergents, as amended. The mixture is biodegradable.

Alcohols C12-14, ethoxylated, propoxylated: easily biodegradable (60%/28 days)

Propan-2-ol: easily biodegradable (53%/5 days)

12.3. Bioaccumulative potential

The safety data sheet complies with Commission Regulation (EU) 878/2020 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) .

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Not determined, bioaccumulation is not likely.

12.4. Mobility in soil

The mixture has not been tested, it is soluble and mobile in water.

12.5. Results of PBT and vPvB assessment

The mixture does not contain substances from the PBT and vPvB groups according to Annex XIII of the REACH Regulation, as amended.

12.6. Endocrine disrupting properties

Substances with these properties in accordance with the criteria set out in Commission Regulation (EU) 2017/2100 or (EU) 2018/605 are not included.

12.7. Other adverse effects

Avoid release to soil, ground or surface water or sewers. Leakage of larger quantities can change the pH of the water environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of as hazardous waste, hand over to authorized person for disposal (eg disposal in hazardous waste incinerator). Dispose of packaging and packaging residues in accordance with local waste disposal regulations. Do not dispose of with household waste. Do not empty into drains. Uncontaminated or thoroughly cleaned packaging can be handed over for recycling.

Waste management legislation

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

Waste type code

16 03 05* organic wastes containing hazardous substances

Packaging waste type code

15 01 10* packaging containing residues of or contaminated by hazardous substances

(*) - Hazardous waste according to Directive 2008/98/EC on hazardous waste

SECTION 14: Transport information

14.1. UN number or ID number

UN 2924

14.2. UN proper shipping name

FLAMMABLE LIQUID, CORROSIVE, N.O.S.

14.3. Transport hazard class(es)

3 Flammable liquids

14.4. Packing group

II

14.5. Environmental hazards

No.

14.6. Special precautions for user

Transport in packages that match the properties of the mixture. Observe the prescribed marking for cargo.

14.7. Maritime transport in bulk according to IMO instruments

Can not be used.

SAFETY DATA SHEET

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Additional information

Always carry closed containers in upright position. Transport in packages that match the properties of the mixture. Observe the prescribed marking for cargo.

| | |
|---------------------------|-------------|
| Hazard identification No. | 338 |
| UN number | 2924 |
| Classification code | FC |
| Safety signs | 3+8 |



| | |
|-------------------------|-------|
| Tunnel restriction code | (D/E) |
|-------------------------|-------|

Air transport - ICAO/IATA

| | |
|----------------------------------|-----|
| Packaging instructions passenger | 352 |
| Cargo packaging instructions | 363 |

Marine transport - IMDG

| | |
|----------------------|----------|
| EmS (emergency plan) | F-E, S-C |
| MFAG | 700 |
| Marine pollutant | Yes |

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the 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, as amended. COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH). Commission Delegated Regulation (EU) 2021/849 of 11 March 2021 amending, for the purposes of adapting to technical and scientific progress, Part 3 of Annex VI to Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labeling and packaging of substances and mixtures. REGULATION (EC) No 648/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents, as amended. Commission Regulation (EU) No 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals.

Restrictions pursuant to Annex XVII of Regulation (EC) No. 1907/2006 (REACH), as amended

methanol

| Restriction | Conditions of restriction |
|-------------|---|
| 69 | Shall not be placed on the market to the general public after 9 May 2019 in windscreen washing or defrosting fluids, in a concentration equal to or greater than 0,6 % by weight. |

Additional information in accordance with Regulation (EC) no. 648/2004 on detergents, as amended

<5 % non-ionic surfactants

15.2. Chemical safety assessment

No chemical hazard assessment was performed for this mixture.

More information

This information only indicates the basic regulations listed in this Safety Data Sheet. Please note the possible existence of additional regulations supplementing these Regulations. We refer to all applicable national, international and local regulations and regulations.

SECTION 16: Other information

The safety data sheet complies with Commission Regulation (EU) 878/2020 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) .

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A list of standard risk phrases used in the safety data sheet

| | |
|----------------|---|
| H225 | Highly flammable liquid and vapour. |
| H290 | May be corrosive to metals. |
| 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. |
| H336 | May cause drowsiness or dizziness. |
| H370 | Causes damage to organs. |
| H371 | May cause damage to organs. |
| H412 | Harmful to aquatic life with long lasting effects. |
| H301+H311+H331 | Toxic if swallowed, in contact with skin or if inhaled. |

Guidelines for safe handling used in the safety data sheet

| | |
|----------------|--|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P260 | Do not breathe mist and vapours. |
| P280 | Wear protective gloves/protective clothing/eye 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. |
| 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 doctor. |
| P501 | Dispose of contents/container to in accordance with local regulations. |

Other important information about human health protection

The mixture should not be used for any purpose other than that for which it is intended (see point 1.2). Because the supplier can not control the specific conditions of use of the mixture, it is the responsibility of the user to adapt the prescribed warnings to local laws and regulations. Safety information describes the product in terms of safety and can not be considered as technical product information.

Key to abbreviations and acronyms used in the safety data sheet

| | |
|------------------|---|
| ADR | European agreement concerning the international carriage of dangerous goods by road |
| BCF | Bioconcentration Factor |
| CAS | Chemical Abstracts Service |
| CLP | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures |
| EC | Identification code for each substance listed in EINECS |
| EC ₅₀ | Concentration of a substance when it is affected 50% of the population |
| EINECS | European Inventory of Existing Commercial Chemical Substances |
| EmS | Emergency plan |
| EU | European Union |
| EuPCS | European Product Categorisation System |
| IATA | International Air Transport Association |
| IBC | International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals |
| IC ₅₀ | Concentration causing 50% blockade |
| ICAO | International Civil Aviation Organization |
| IMDG | International Maritime Dangerous Goods |
| IMO | International Maritime Organization |
| INCI | International Nomenclature of Cosmetic Ingredients |
| ISO | International Organization for Standardization |
| IUPAC | International Union of Pure and Applied Chemistry |

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| | |
|---------------------|---|
| LC ₅₀ | Lethal concentration of a substance in which it can be expected death of 50% of the population |
| LD ₅₀ | Lethal dose of a substance in which it can be expected death of 50% of the population |
| log K _{ow} | Octanol-water partition coefficient |
| NOEC | No observed effect concentration |
| NPK | Maximum admissible concentration |
| OEL | Occupational Exposure Limits |
| PBT | Persistent, Bioaccumulative and Toxic |
| PEL | Permissible Exposure Limit |
| ppm | Parts per million |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| RID | Agreement on the transport of dangerous goods by rail |
| UN | Four-figure identification number of the substance or article taken from the UN Model Regulations |
| UVCB | Substances of unknown or variable composition, complex reaction products or biological materials |
| VOC | Volatile organic compounds |
| vPvB | Very Persistent and very Bioaccumulative |
| Acute Tox. | Acute toxicity |
| Aquatic Chronic | Hazardous to the aquatic environment (chronic) |
| Eye Dam. | Serious eye damage |
| Flam. Liq. | Flammable liquid |
| Met. Corr. | Corrosive to metals |
| Skin Corr. | Skin corrosion |
| STOT SE | Specific target organ toxicity - single exposure |

Training guidelines

According to § 103 and § 104 of Act No. 262/2006 Coll., The Labor Code, as amended.

Recommended restrictions of use

The mixture should not be used for any purpose other than that for which it is intended (see point 1.2). Because the specific conditions of use of the substance are beyond the control of the supplier, it is the responsibility of the user to adapt the prescribed warnings to local laws and regulations. Safety information describes the product in terms of safety and can not be considered as technical product information.

Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended.
REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. First aid principles after the exposure to the chemicals (Zásady pro poskytování první pomoci při expozici chemickým látkám, doc. MUDr. Daniela Pelclová, CSc., MUDr. Alexandr Fuchs, CSc., MUDr. Miroslava Hornychová, CSc., MUDr. Zdeňka Trávníčková, CSc., Jiřina Fridrichovská, prom. chem.). Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

The changes (which information has been added, deleted or modified)

Adaptation of BL updated Annex II of the REACH Regulation as amended by Commission Regulation (EU) 2020/878.

Statement

The safety data sheet contains the data needed to ensure safety and health at work and environmental protection. These data correspond to the current state of knowledge and experience and are in accordance with applicable legal regulations. They can not be considered as a guarantee of the suitability and usability of the product for a specific application. The user is responsible for the treatment under existing laws and regulations.