

## Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31, Annex II  
according to Regulation (EU) No 2020/878

Printing date: 14.02.2025  
Revision date: 07.02.2025  
Version number: 1

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

#### 1.1 Product identifier

**Trade name:** **FIRESI FRSE-F6**

**Other names:** Universal Foam Fire Extinguisher - 6 Liters

**UFI:** HPHY-R0GR-R30M-EEUJ

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

No use descriptors (LCS, SU, PC, PROC, ERC, AC, TF categories) of the substance or mixture are available.

#### Application of the substance / the mixture:

The universal foam extinguisher is equipped with the special FRS EXcellent 1 extinguishing agent, which ensures effective extinguishing of fires involving solids, liquids - including edible fats and oils, gases, metals and even lithium-ion batteries.

Operating temperature down to -15 °C.

**Uses advised against:** Any other than the above mentioned.

#### 1.3 Details of the supplier of the safety data sheet

##### Supplier:

FIRESI s.r.o.

Lidická kolonie 1108/47, 586 01 Jihlava, Czech Republic

Company registration number: 29188024 / VAT: CZ29188024

Phone: +420 605 200 555

E-mail: firesi@firesi.cz / Website: www.firesi.cz

##### Further information obtainable from:

Ing. Karel Královec, Studio2K, Czech Republic

Phone: +420 777 145 808, Email: bl@studio2k.cz, Website: www.bezpecnostni-listy.eu

#### 1.4 Emergency telephone number

European Chemicals Agency. National helpdesks contact details - <https://echa.europa.eu/support/helpdesks>.

Links to Poison Centers and Clinical Toxicologists all over the World: <https://www.eapcct.org/index.php?page=links>.

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification according to Regulation (EC) No 1272/2008

The product is classified as dangerous in the terms of the Regulation (EC) No 1272/2008 (CLP).

Press. Gas (Comp.) H280 Contains gas under pressure; may explode if heated.

#### 2.2 Label elements

**Labelling according to Regulation (EC) No 1272/2008:** The product is classified and labelled according to the CLP regulation.

##### Hazard pictograms:



GHS04

**Signal word:** Warning

**Hazard-determining components of labelling:** Void.

##### Hazard statements:

H280 Contains gas under pressure; may explode if heated.

##### Precautionary statements:

P102 Keep out of reach of children.

P410+P403 Protect from sunlight. Store in a well-ventilated place.

##### Additional information:

EUH208 Contains Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1). May produce an allergic reaction.

##### Classification system:

Impurities, test data and additional information may have been taken into account in classifying and labelling the product.

The product is intended for consumer and professional use, and this corresponds to its labeling on the packaging.

#### 2.3 Other hazards

##### Results of PBT and vPvB assessment

###### PBT:

The mixture does not contain substances classified at the date of preparation of the safety data sheet as PBT according to Regulation (EC) No 1907/2006 (REACH) in a concentration equal to or greater than 0.1 % by weight.

###### vPvB:

The mixture does not contain substances classified at the date of preparation of the safety data sheet as vPvB according to Regulation (EC) No 1907/2006 (REACH) in a concentration equal to or greater than 0.1 % by weight.

##### Determination of endocrine-disrupting properties

The mixture does not contain substances that have been identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0.1 % by weight.

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### SECTION 3: Composition/information on ingredients

#### 3.2 Mixtures

Description: Fire extinguishing agent FRS EXcellent 1 and compressed nitrogen propellant.

Dangerous components:		
CAS: 142-31-4 EINECS: 205-535-5 REACH: 01-2119966154-35-XXXX	Sodium octyl sulphate ⚠ Eye Dam. 1, H318 ⚠ Skin Irrit. 2, H315 Specific concentration limits: Eye Dam. 1; H318: C ≥ 20 % Eye Irrit. 2; H319: 10 % ≤ C < 20 %	≤ 2.5%
CAS: 112-34-5 EINECS: 203-961-6 INDEX: 603-096-00-8 REACH: 01-2119475104-44-XXXX	2-(2-butoxyethoxy)ethanol ⚠ Eye Irrit. 2, H319	≤ 2.5%
CAS: 64-17-5 EINECS: 200-578-6 INDEX: 603-002-00-5 REACH: 01-2119457610-43-XXXX	Ethanol ⚠ Flam. Liq. 2, H225	< 1%
CAS: 7727-37-9 EINECS: 231-783-9	nitrogen ⚠ Press. Gas (Comp.), H280	< 1%
CAS: 55965-84-9 EC: 611-341-5 INDEX: 613-167-00-5	Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) ⚠ Acute Tox. 3, H301; Acute Tox. 2, H310; Acute Tox. 2, H330 ⚠ Skin Corr. 1C, H314; Eye Dam. 1, H318 ⚠ Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=100) ⚠ Skin Sens. 1A, H317 EUH071 Specific concentration limits: Skin Corr. 1C; H314: C ≥ 0.6 % Skin Irrit. 2; H315: 0.06 % ≤ C < 0.6 % Eye Dam. 1; H318: C ≥ 0.6 % Eye Irrit. 2; H319: 0.06 % ≤ C < 0.6 % Skin Sens. 1A; H317: C ≥ 0.0015 %  Note B	< 0.1%
Non dangerous components:		
CAS: 57-13-6 EINECS: 200-315-5	Urea	50 - 100%
CAS: 7732-18-5 EINECS: 231-791-2	Distilled water, demineralised	2.5 - 10%

#### Notes:

##### Note B:

Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations.

In Part 3 entries with Note B have a general designation of the following type: 'nitric acid .. %'.

In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

#### SVHC:

The product does not contain substances classified as of the date of preparation of the safety data sheet as PBT or vPvB and stated in the Candidate list of substances producing very high concerns for Appendix XIV of Regulation (EC) No 1907/2006 (REACH).

**Regulation (EC) No 648/2004 on detergents / Labelling for contents:** Not apply.

#### Additional information:

The substances named in this section are given with their actual, appropriate classification!

For substances that are listed in appendix VI, table 3 of the Regulation (EC) No 1272/2008 (CLP Regulation) this means that all notes that may be given here for the named classification have been taken into account.

For the wording of the listed hazard phrases refer to section 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General information:

In case of doubt, appearance of symptoms or upon any problems, seek medical help and present this safety data sheet or the product label.

Never pour anything into the mouth of an unconscious person!

Personal protection for the First Aider.

Immediately remove any clothing soiled by the product.

##### After inhalation:

Remove person from danger area.

Lead the person to fresh air, put the person into a calm environment. In subsequent or continuing troubles, seek medical assistance.

##### After skin contact:

Wash the affected skin with water and soap and rinse thoroughly. Upon skin irritation or other problems, consult further procedure with an expert physician.

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### After eye contact:

Open the eye lids, possibly remove contact lenses, and rinse the affected eyes thoroughly with clean flowing water. Upon skin irritation or other problems, consult further procedure with an expert physician.

### After swallowing:

Thoroughly rinse the mouth with water, do not give anything to drink and do not induce vomiting. Put the affected person in warm and calm conditions. Seek medical assistance immediately.

**Information for doctor:** Symptomatic treatment.

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

Possible toxicological effects resulting from the classification are stated in Section 11.

#### Upon skin contact:

Allergic reaction possible.

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

In case of ingestion seek medical help immediately.

For special medical advice, contact the Toxicology Information Centre.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing agents:** No extinguishing substances are determined, the mixture is not flammable.

**For safety reasons unsuitable extinguishing agents:** No extinguishing substances are determined, the mixture is not flammable.

### 5.2 Special hazards arising from the substance or mixture

No special dangers are determined.

The product itself is not flammable.

### 5.3 Advice for firefighters

#### Protective equipment:

No special measures required.

According to size of fire.

Corresponding protective insulation breathing apparatus and overpressure counter-chemical protective clothing.

#### Additional information:

Cool with water the products in enclosed packaging, which is near the fire. If possible, remove the products in un-damaged packaging from the danger area. Store the contaminated extinguishing water separately and do not let it into the sewerage. Remove the extinguishing water or used extinguishing materials together with the remnants of the fire according to the corresponding regulations.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Respect the instructions set forth in Sections 7 and 8 of the safety data sheet.

#### For non-emergency personnel:

Use personal protective equipment.

Avoid contact with eyes and skin.

Prevent entry of unauthorized and unprotected persons.

**For emergency responders:** See section 8 for suitable protective equipment and material specification.

### 6.2 Environmental precautions

Product is not dangerous for nature or water.

### 6.3 Methods and material for containment and cleaning up

No special measures required.

Protect health against exposure of contained substances from the atmosphere, see the limit values of exposure, which are stated in Section 8.

The further disposal procedure is governed by the regulations in Section 13.

Ensure adequate ventilation.

### 6.4 Reference 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.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

In addition to the information provided in this section, important information is also provided in Sections 6 and 8.

#### Information about fire - and explosion protection:

No special measures required.

Respect general regulations on fire prevention.

#### Handling:

Before use, it is necessary to familiarize oneself with the contents of Sections 2, 6, 8, and 11 of the safety data sheet.

Ensure good ventilation and exhaustion.

Use personal protective equipment.

Avoid contact with eyes and skin.

Observe directions on label and instructions for use.

General hygiene measures for the handling of chemicals are applicable.

Before a pause and after ending the work, wash the hands and take off the polluted working clothes. Keep these clothes separately.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Do not eat, drink, smoke, or snuff during use.

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### 7.2 Conditions for safe storage, including any incompatibilities

#### Storage

##### Requirements to be met by storerooms and receptacles:

Observe official regulations on storing packagings with pressurised containers.

Store only in unopened original receptacles.

##### Information about storage in one common storage facility:

Keep away from food, drink and animal feedingstuffs.

Store away from other chemical products.

##### Further information about storage conditions:

Store in a dry and well ventilated place.

Protect from heat and direct sunlight.

Shelf life: 36 months from production date.

**Maximum storage temperature:** Do not store at temperatures over +50 ° C.

**Minimum storage temperature:** Do not store at temperatures below -15°C.

**7.3 Specific end use(s)** Specific use is stated in the manual for use on the product packaging label or in the product documentation.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Ingredients with limit values that require monitoring at the workplace:

##### 112-34-5 2-(2-butoxyethoxy)ethanol

IOELV	Short-term value: 101.2 mg/m <sup>3</sup> , 15 ppm
	Long-term value: 67.5 mg/m <sup>3</sup> , 10 ppm

#### Regulatory information:

IOELV: COMMISSION DIRECTIVE (EU) 2019/1831 of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.

BOELV: DIRECTIVE (EU) 2022/431 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2022 amending

Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work

WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40.

#### DNELs:

##### 57-13-6 Urea

Oral	DNEL - Long term exposure, systemic effects	42 mg/kg/d (consumers)
	DNEL - Short term exposure, systemic effects	42 mg/kg/d (consumers)
Dermal	DNEL - Long term exposure, systemic effects	580 mg/kg/d (consumers) 580 mg/kg/d (workers)
	DNEL - Short term exposure, systemic effects	580 mg/kg/d (consumers) 580 mg/kg/d (workers)
Inhalative	DNEL - Long term exposure, systemic effects	125 mg/m <sup>3</sup> (consumers) 292 mg/m <sup>3</sup> (workers)
	DNEL - Short term exposure, systemic effects	125 mg/m <sup>3</sup> (consumers) 292 mg/m <sup>3</sup> (workers)

##### 142-31-4 Sodium octyl sulphate

Oral	DNEL - Long term exposure, systemic effects	24 mg/kg/d (consumers)
Dermal	DNEL - Long term exposure, systemic effects	2,440 mg/kg/d (consumers) 4,060 mg/kg/d (workers)
	DNEL - Long term exposure, systemic effects	85 mg/m <sup>3</sup> (consumers) 285 mg/m <sup>3</sup> (workers)

##### 112-34-5 2-(2-butoxyethoxy)ethanol

Oral	DNEL - Long term exposure, systemic effects	200 mg/kg/d (consumers)
Dermal	DNEL - Long term exposure, systemic effects	50 mg/kg/d (consumers) 83 mg/kg/d (workers)
	DNEL - Long term exposure, systemic effects	40.5 mg/m <sup>3</sup> (consumers) 67.5 mg/m <sup>3</sup> (workers)
Inhalative	DNEL - Short term exposure, systemic effects	60.7 mg/m <sup>3</sup> (consumers) 101.2 mg/m <sup>3</sup> (workers)

##### 55965-84-9 Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Oral	DNEL - Long term exposure, systemic effects	0.09 mg/kg/d (consumers)
	DNEL - Short term exposure, systemic effects	0.11 mg/kg/d (consumers)
Inhalative	DNEL - Long term exposure, local effects	0.02 mg/m <sup>3</sup> (consumers) 0.02 mg/m <sup>3</sup> (workers)
	DNEL - Short term exposure, local effects	0.04 mg/m <sup>3</sup> (consumers) 0.04 mg/m <sup>3</sup> (workers)

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PNECs:	
<b>57-13-6 Urea</b>	
PNEC - Freshwater	0.047 mg/l
<b>142-31-4 Sodium octyl sulphate</b>	
PNEC - Freshwater	0.1357 mg/l
PNEC - Marine water	0.01357 mg/l
PNEC - Sewage treatment plant	1.35 mg/l
PNEC - Sediment, freshwater	1.5 mg/kg
PNEC - Sediment, marine water	0.15 mg/kg
PNEC - Soil	0.22 mg/kg
<b>112-34-5 2-(2-butoxyethoxy)ethanol</b>	
PNEC - Freshwater	1.1 mg/l
PNEC - Marine water	0.11 mg/l
PNEC - Sewage treatment plant	200 mg/l
PNEC - Sediment, freshwater	4.4 mg/kg
PNEC - Sediment, marine water	0.44 mg/kg
PNEC - Soil	0.32 mg/kg
PNEC - Oral (animal feed)	56 mg/kg
<b>55965-84-9 Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)</b>	
PNEC - Freshwater	0.00339 mg/l
PNEC - Marine water	0.00339 mg/l
PNEC - Sewage treatment plant	0.23 mg/l
PNEC - Sediment, freshwater	0.027 mg/kg
PNEC - Sediment, marine water	0.027 mg/kg
PNEC - Soil	0.01 mg/kg
PNEC - Water (sporadic release)	0.00339 mg/l

**Ingredients with biological limit values:**

The product does not contain any relevant quantities of materials with biological limit values.

**Additional information:** The lists valid during the making were used as basis.

**8.2 Exposure controls**
**Appropriate engineering controls:**

Ensure good ventilation. This can be achieved by local suction or general air extraction. If this is insufficient to maintain the concentration under WEL or IOEL values, suitable breathing protection should be worn. Applies only if maximum permissible exposure values are listed here.

**Individual protection measures, such as personal protective equipment**
**General protective and hygienic measures:**

 The usual precautionary measures are to be adhered to when handling chemicals.  
 Keep away from foodstuffs, beverages and feed.  
 Do not eat, drink, smoke or sniff while working.  
 Immediately remove all soiled and contaminated clothing.  
 Do not inhale gases/fumes/aerosols.  
 Avoid contact with the eyes and skin.

**Eye/face protection:**

Not required during regular use.



In case of danger of contact of the product drops with eyes, use tightly adhering protective goggles (EN 166).

**Body protection:**


Use the working protective clothes with long sleeves (EN ISO 6529), possibly protective working footwear (EN ISO 20345).

**Hand protection**

Not required during regular use.



As needed, use protective gloves (EN ISO 374-1).

Preventive skin protection by use of skin-protecting agents is recommended.

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Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

### Material of gloves:

Nitrile rubber gloves (EN ISO 374-1).

Recommended thickness of the material:  $\geq 0.11$  mm.

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.

Glove material selection was performed based on the glove producers' data and information on substances contained in the product.

### Penetration time of glove material:

> 480 minutes, level 6 (EN 16523-1).

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

The determined penetration times according to EN 16523-1 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50 % of the penetration time, is recommended.

No tests have been performed, glove resistance must be tested before use.

**Other:** Not determined.

### Respiratory protection:

Unnecessary during regular use.



In case of insufficient ventilation and exceeding permitted exposure limits, use a suitable half-mask (EN 149+A1) with a filter (EN 14387+A1).

Observe wearing time limitations for respiratory protection equipment.

**Recommended filter device for short term use:** Filter A (EN 14387+A1), code colour brown.

### Thermal hazards:

If applicable, these are included in the individual protective measures (eye/face protection, skin protection, respiratory protection).

**Environmental exposure controls:** Adhere to usual measures for environmental protection, see Section 6.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### General Information

<b>Physical state:</b>	Liquid.
<b>Colour:</b>	Clear.
<b>Odour:</b>	Characteristic.
<b>Melting point/freezing point:</b>	-15 °C
<b>Boiling point or initial boiling point and boiling range:</b>	100 °C (water)
<b>Flammability:</b>	It is not flammable.
<b>Lower and upper explosion limit</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Flash point:</b>	Not applicable.
<b>Auto-ignition temperature:</b>	Not applicable.
<b>Decomposition temperature:</b>	Not determined.
<b>pH:</b>	Slightly alkaline
<b>Viscosity</b>	
<b>Kinematic viscosity:</b>	Not determined.
<b>Dynamic viscosity:</b>	Not determined.
<b>Solubility</b>	
<b>water:</b>	Fully miscible.
<b>Partition coefficient n-octanol/water (log value):</b>	Not determined.
<b>Vapour pressure at 20 °C:</b>	23 hPa (water)
<b>Density and/or relative density</b>	
<b>Density at 20 °C:</b>	1.1 g/cm <sup>3</sup>
<b>Vapour density:</b>	Not determined.
<b>Relative gas density:</b>	Not determined.

### 9.2 Other information

#### Important information on protection of health and environment, and on safety.

<b>Ignition temperature:</b>	Not apply.
<b>Explosive properties:</b>	Product does not present an explosion hazard.
<b>Solvent content</b>	
<b>VOC (2010/75/EC):</b>	Not apply.
<b>Oxidising properties:</b>	Not determined.
<b>Evaporation rate:</b>	Not determined.
<b>Relative evaporation rate:</b>	Not determined.

#### Information with regard to physical hazard classes

<b>Explosives:</b>	Void.
<b>Flammable gases:</b>	Void.
<b>Aerosols:</b>	Void.
<b>Oxidising gases:</b>	Void.

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<b>Gases under pressure:</b>	Contains gas under pressure; may explode if heated.
<b>Flammable liquids:</b>	Void.
<b>Flammable solids:</b>	Void.
<b>Self-reactive substances and mixtures:</b>	Void.
<b>Pyrophoric liquids:</b>	Void.
<b>Pyrophoric solids:</b>	Void.
<b>Self-heating substances and mixtures:</b>	Void.
<b>Substances and mixtures, which emit flammable gases in contact with water:</b>	Void.
<b>Oxidising liquids:</b>	Void.
<b>Oxidising solids:</b>	Void.
<b>Organic peroxides:</b>	Void.
<b>Corrosive to metals:</b>	Void.
<b>Desensitised explosives:</b>	Void.
<b>Additional information:</b>	No relevant information available.

### SECTION 10: Stability and reactivity

**10.1 Reactivity** Upon adhering to the determined regulations of storage and use, no reactivity is expected (see Section 7).

**10.2 Chemical stability** Upon adhering to the determined regulations of storage and use, the product is stable (see Section 7).

**10.3 Possibility of hazardous reactions** No dangerous reactions known.

**10.4 Conditions to avoid** Temperature < -15 °C.

**10.5 Incompatible materials** No incompatible materials are known.

**10.6 Hazardous decomposition products** No hazardous decomposition products are known.

### SECTION 11: Toxicological information

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

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

**Relevant toxicological values for classification:**

#### 57-13-6 Urea

Oral	LD50	14,300 mg/kg (rat)
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#### 142-31-4 Sodium octyl sulphate

Oral	LD50	> 2,000 mg/kg (rat)
Dermal	LD50	> 2,000 mg/kg (rabbit)

#### 112-34-5 2-(2-butoxyethoxy)ethanol

Oral	LD50	5,660 mg/kg (rat)
Dermal	LD50	4,000 mg/kg (rabbit)

#### 64-17-5 Ethanol

Oral	LD50	> 6,200 mg/kg (rat)
Dermal	LD50	> 2,000 mg/kg (rabbit)
Inhalative	LC50/4 h	> 8,000 mg/l (rat)

#### 55965-84-9 Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Oral	LD50	53 mg/kg (rat)
Dermal	LD50	87 mg/kg (rabbit)
Inhalative	ATE	0.5 mg/l/4h (ATE)

#### Primary irritant effect

**Skin corrosion/irritation:** Based on available data, the classification criteria are not met.

**Serious eye damage/irritation:** Based on available data, the classification criteria are not met.

**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.

#### 142-31-4 Sodium octyl sulphate

Oral	NOAEL	488 mg/kg/d (rat) (OECD 408 - Repeated Dose 90-Day Oral Toxicity Study in Rodents)
Dermal	NOAEL	400 mg/kg/d (mouse) (OECD 411 - Subchronic Dermal Toxicity - 90-Day Study)

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

**Other information:** No toxicological data are available for the mixture.

**Subacute to chronic toxicity:** Based on available data, the classification criteria are not met.

**Additional toxicological information:** Allergic reaction possible through skin contact.

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**Acute effects:** No acute effects are known.

**Repeated dose toxicity:** Based on available data, the classification criteria are not met.

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):** No CMR effects are known.

### 11.2 Information on other hazards

#### Endocrine disrupting properties:

None of the ingredients is listed.

**Other information:** No other relevant information available on adverse effects on health.

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Aquatic toxicity:

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

#### 57-13-6 Urea

LC50/72 h > 10,000 mg/l (bacteria)

*Pseudomonas putida*

LC50/96 h > 6,810 mg/l (fish)

*Leuciscus idus*

EC50/48 h > 10,000 mg/l (daphnia)

*Daphnia magna*

#### 142-31-4 Sodium octyl sulphate

LC50/96 h > 100 mg/l (fish) (OECD 203 - Fish, Acute Toxicity Test)

*Brachydanio rerio*

EC50/48 h > 100 mg/l (invertebrates) (OECD 202 - Daphnia sp. Acute Immobilisation Test)

*Daphnia magna*

EC50/72 h > 511 mg/l (algae) (EU C.3 (92/69/EEC))

*Desmodesmus subspicatus*

NOEC/42 d ≥ 1.357 mg/l (fish)

*Pimephales promelas*

NOEC/21 d 1.4 mg/l (invertebrates) (OECD 211 - Daphnia magna Reproduction Test)

*Daphnia magna*

#### 112-34-5 2-(2-butoxyethoxy)ethanol

LC50/96 h 1,300 mg/l (fish)

EC50/48 h 2,850 mg/l (daphnia)

IC50/72 h 73 mg/l (algae)

#### 64-17-5 Ethanol

LC50/48 h > 14,221 mg/l (daphnia)

*Daphnia magna*

> 8,140 mg/l (fish)

*Leuciscus idus*

LC50 > 5,000 mg/l (algae)

*Scenedesmus quadricauda*

#### 55965-84-9 Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

LC50/96 h 0.19 mg/l (fish)

*Oncorhynchus mykiss*

EC50/48 h 0.16 mg/l (daphnia)

*Daphnia magna*

EC50/72 h > 0.037 mg/l (algae)

*Pseudokochneriella subcapitata*

EC50/16 h 5.7 mg/l (bacteria)

*Pseudomonas putida*

### 12.2 Persistence and degradability

#### 142-31-4 Sodium octyl sulphate

Biodegradability, aerobic 93.5 %/29 d (OECD 301 B - Ready Biodegradability - CO2 Evolution Test)  
the substance is readily biodegradable

#### 64-17-5 Ethanol

Biodegradability in water 97 %/28 d (OECD 301 B - Ready Biodegradability - CO2 Evolution Test)  
the substance is readily biodegradable

#### 55965-84-9 Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Biodegradability in water < 50 %/10 d  
the substance is not readily biodegradable

**Behaviour in waste water treatment plants:** No relevant information is available.

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<b>12.3 Bioaccumulative potential</b>	
<b>142-31-4 Sodium octyl sulphate</b>	
log Pow	≤ -2.31 (OECD 107 - Partition Coefficient (n-octanol/water)) bioaccumulation is not expected
<b>112-34-5 2-(2-butoxyethoxy)ethanol</b>	
log Pow	0.56 (při 25 °C) bioaccumulation is not expected
<b>64-17-5 Ethanol</b>	
log Pow	-0.349 (24 °C) bioaccumulation is not expected
<b>55965-84-9 Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)</b>	
log Pow	0.401 measured value, bioaccumulation is not expected
<b>Bioconcentration factor (BCF):</b>	
<b>64-17-5 Ethanol</b>	
BCF	0.66 - 3.2
<b>55965-84-9 Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)</b>	
BCF	3.6 calculated value
<b>12.4 Mobility in soil</b>	
<b>64-17-5 Ethanol</b>	
Koc	1
Henry's constant H	0.461 Pa*m <sup>3</sup> /mol
Surface tension σ	0.02339 N/m (25 °C)
<b>55965-84-9 Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)</b>	
log Koc	28 estimated value

### 12.5 Results of PBT and vPvB assessment

The product does not contain substances classified as PBT or vPvB and included in the list of substances subject to authorization (Annex XIV of EP and R Regulation No 1907/2006, as amended).

**PBT:** No relevant information is available.

**vPvB:** No relevant information is available.

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

**12.7 Other adverse effects** No information available on other adverse effects on the environment.

### Additional ecological information

<b>COD-value:</b>	
<b>64-17-5 Ethanol</b>	
COD	1.9 g O <sub>2</sub> /g
<b>BOD5-value:</b>	
<b>64-17-5 Ethanol</b>	
BOD5	1 g O <sub>2</sub> /g

**AOX-indication:** No relevant information is available.

### General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Recommendation:

Product residues are not hazardous waste.

The product can be discharged into the waste or sewage system.

Remove product residues according to the corresponding local directives as other waste.

Alternatively, dispose of product residues in accordance with relevant local guidelines in appropriate facilities.

#### Waste disposal key:

The catalogue numbers with the asterisk (\*) mark hazardous waste (N), numbers without the asterisk mark other waste (O).

The waste codes are recommendations based on the scheduled use of this product. Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2001/118/EC, 2001/119/EC, 2001/573/EC, 2014/955/EU).

<b>European waste catalogue and hazardous properties of waste:</b>	
15 01 11*	metallic packaging containing a hazardous solid porous matrix (for example asbestos), including empty pressure containers
16 05 05	gases in pressure containers other than those mentioned in 16 05 04

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15 01 01	paper and cardboard packaging
15 01 04	metallic packaging

### Uncleaned packaging

#### Recommendation:

Dispose of packaging according to regulations on the disposal of packagings.

Empty pressure containers completely (including propellant).

Do not forcefully open or incinerate empty pressure containers after use.

Take full aerosol cans to problem waste collection.

Handover the emptied packaging to the authorised organisation, which has a licence for their disposal.



#### Regulations:

Commission Decision No 2014/955/EU of 18 December 2014 amending Decision 2000/532/EC on the list of waste pursuant to Directive 2008/98/EC of the European Parliament and of the Council.

Commission Regulation (EU) No 1357/2014, replacing Annex III to Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives.

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives, as amended.

## SECTION 14: Transport information

<b>14.1 UN number or ID number</b> ADR, IMDG, IATA	UN1044
<b>14.2 UN proper shipping name</b> ADR IMDG, IATA	1044 FIRE EXTINGUISHERS FIRE EXTINGUISHERS
<b>14.3 Transport hazard class(es)</b> ADR	
	
<b>Class:</b> <b>Label:</b>	2.2 Gases. 2.2
<b>IMDG, IATA</b>	
	
<b>Class:</b> <b>Label:</b>	2.2 Gases. 2.2
<b>14.4 Packing group</b> ADR, IMDG, IATA	Void.
<b>14.5 Environmental hazards</b> Marine pollutant:	No
<b>14.6 Special precautions for user</b>	All persons involved in transporting must observe safety regulations. Persons employed in transporting dangerous goods must be trained. Precautions must be taken to prevent damage. Warning: Gases.
<b>Hazard identification number (Kemler code):</b> <b>EMS Number:</b>	- F-C,S-V
<b>14.7 Maritime transport in bulk according to IMO instruments</b>	Freighted as packaged goods rather than in bulk, therefore not applicable. Minimum amount regulations have not been taken into account. Comply with special provisions.
<b>Transport/Additional information:</b>	
<b>ADR</b> <b>Limited quantities (LQ):</b> <b>Excepted quantities (EQ):</b>	120 ml Code: E0 Not permitted as Excepted Quantity
<b>Transport category:</b> <b>Tunnel restriction code:</b>	3 E

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<b>IMDG</b>	
<b>Limited quantities (LQ):</b>	120 ml
<b>Excepted quantities (EQ)</b>	Code: E0 Not permitted as Excepted Quantity.
<b>UN "Model Regulation":</b>	UN 1044 FIRE EXTINGUISHERS, 2.2

### SECTION 15: Regulatory information

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

**Directive 2004/42/EC of the European Parliament and the Council:** Does not apply.

**Named dangerous substances - ANNEX I:** None of the ingredients is listed.

**DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II:**

None of the ingredients is listed.

**REGULATION (EU) 2019/1148:**

**Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

**Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

**Regulation (EC) No 273/2004 on drug precursors:**

None of the ingredients is listed.

**Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors:**

None of the ingredients is listed.

#### Legal regulations of the European Community:

Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR), applicable as from 1 January 2025.

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, as amended.

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 1907/2006, as amended.

COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of major-accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC, as amended.

COMMISSION REGULATION (EU) amending for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures: 2016/918 (8. ATP from 1.2.2018), 2016/1179 (9. ATP from 1.3.2018), 2017/776 (10. ATP from 1.12.2018), 2018/669 (11. ATP from 1.12.2019), 2019/521 (12. ATP from 17.10.2020), 2018/1480 (13. ATP from 1.5.2020).

COMMISSION DELEGATED REGULATION (EU) amending for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures:

2020/217 (14. ATP from 1.10.2021), 2020/1182 (15. ATP from 1.3.2022), 2021/643 (16. ATP from 10.5.2021), 2021/849 (17. ATP from 17.12.2022), 2022/692 (18. ATP from 1.12.2023), 2023/1434 (19. ATP from 1.8.2023).

**15.2 Chemical safety assessment** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

#### Warning:

The safety data sheet contains data needed for securing safety and health protection during work and environmental protection. The stated data correspond to the current state of knowledge and experience and is in accordance with valid legal regulations. It cannot be deemed as a guarantee of the properties, suitability, and usefulness of the product for specific application and therefore no contractual legal relationships are hereby created.

The safety data sheet is the property of the physical or legal entity stated in Section 1 and is protected by copy-right. All copying, distribution or sales without the consent of the owner is forbidden.

#### Relevant phrases:

H225	Highly flammable liquid and vapour.
H280	Contains gas under pressure; may explode if heated.
H301	Toxic if swallowed.
H310	Fatal in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.

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H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
EUH071 Corrosive to the respiratory tract.

### Training hints:

Pursuant to article No 35 of the European Parliament and Council Regulation (ES) No 1907/2006, the employer must allow employees or their representatives access to information from the safety data sheet of the substance or preparation, which the employees use or to the effects of which they may be exposed during their work.

Physical entities performed individual activities within the scope of handling of this hazardous product are trained and regularly, at least once a year, retrained.

Product information sources: safety data sheet, product or technical information, safety instructions, and other expert documents for the product, issued by the supplier.

### Recommended restriction of use:

The product is to be used only for the purpose, for which it is designed. It is up to the user's responsibility to adhere to the product usage conditions and to respect the safety instructions for health and environmental protection.

**Further information:** This product must be stored, sold, and used in accordance with valid hygienic regulations.

### Classification according to Regulation (EC) No 1272/2008:

Gases under pressure	On basis of test data
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### Department issuing SDS:

Ing. Karel Královec, Studio2K, Czech Republic  
Phone: +420 777 145 808, Email: info@studio2k.cz, Website: www.studio2k.cz / www.bezpecnostni-listy.eu

First issue of SDS: 07.02.2025

Internal code formula: 1052.009

### Documents used to prepare SDS:

The original documents provided by the supplier or manufacturer related to the product (mixture), eventually to individual substances contained.

### Abbreviations and acronyms:

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)

VOC: Volatile Organic Compounds (USA, EU)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

ATE: Acute toxicity estimate values

Press. Gas (Comp.): Gases under pressure – Compressed gas

Flam. Liq. 2: Flammable liquids – Category 2

Acute Tox. 3: Acute toxicity – Category 3

Acute Tox. 2: Acute toxicity – Category 2

Skin Corr. 1C: Skin corrosion/irritation – Category 1C

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

Skin Sens. 1A: Skin sensitisation – Category 1A

Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

### Information on data sources used in compiling the safety data sheet:

The safety data sheet was prepared in accordance with the European Parliament and Council Regulation (EC) No 1272/2008 (CLP) and according to the requirements of the European Parliament and Council Regulation (EC) No 1907/2006 about the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency - head IV, article 31, appendix II (instructions for safety data sheet compiling), as amended by the Commission Regulation (EU) No 2020/878 of 18 June 2020.

The missing ecotoxicology and toxicology data was obtained from the ESIS (European chemical Substances Information System), specifically from the IUCLID (International Uniform Chemical Information Database). As needed, data from further available chemical databases was used.

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End of safety data sheet!

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