

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/ MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier

Trade name: **Bonpet fire-extinguishing liquid**
Product code: 00001
Registration Number: not relevant (mixture)
UFI: not a dangerous mixture

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

Relevant identified uses: for extinguishing fires. The product is used for industrial and professional use.

Method of professional use: used in fire-extinguishing systems and fire-extinguishing products.

Uses advised against: the product is not used for purposes other than those recommended.

1.3 Details of the supplier of the safety data sheet

Producer

BONPET SYSTEMS d.o.o., Obrtniška cesta 30, SI 1420 TRBOVLJE SLOVENIJA

Phone: +386 3 56 14 720

Fax: +386 3 56 14 722

e-mail: info@bonpet.si

Production plant

BONPET SYSTEMS d.o.o., Pot Vitka Pavliča 9 SI 1430 HRASTNIK SLOVENIJA

Phone: +386 3 56 14 720

Fax: +386 3 56 14 722

e-mail: info@bonpet.si

1.4 Emergency telephone number

Additional information from the manufacturer: tel.: +386 3 56 14 720 Monday-Friday from 8:00 to 15:00.

Emergency center: 112

Poison Center in Slovenia:

CENTRE FOR CLINICAL PHARMACOLOGY AND TOXICOLOGY, DIVISION OF INTERNAL MEDICINE

University Medical Centre Ljubljana, Zaloška 7, 1000 Ljubljana, Slovenia

Phone: (01) 522 52 83

e-mail: gp.ukc@kclj.si

website: <https://www.kclj.si>

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

The product is not classified as hazardous based on the CLP requirements of EC Regulation No.1272/2008.

Health: the liquid is not for drinking. Does not irritate the eyes.

Environment: the liquid is highly biodegradable. Follow the disposal recommendations given in section 13.

2.2 Label elements

The product does not require a label based on the CLP requirements of EC Regulation No. 1272/2008.

2.3 Other hazards

This mixture does not contain ingredients considered persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or greater.

The mixture does not contain ingredients that are considered to have endocrine disrupting properties according to Article 57(f) REACH or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at the level of 0.1% or higher.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances: not relevant because the product is a mixture.

3.2 Mixture: Bonpet fire-extinguishing liquid is a mixture of non-hazardous additives and the substances listed below.

Substance name	CAS No. EC No. REACH No.	Concentration	Classification according EC Regulation 1272/2008
----------------	--------------------------------	---------------	---

Ammonium carbonate $\text{CH}_2\text{O}_3 \cdot x\text{H}_3\text{N}$	10361-29-2 233-786-0 01-2119985376-22	3 %	Acute Tox. 4 oral / H302
Ammonium hydrogen carbonate $\text{CH}_2\text{O}_3 \cdot \text{H}_3\text{N}$	1066-33-7 213-911-5 01-2119486970-26	3 %	Acute Tox. 4 oral / H302
Skum AFFF 3% UG	/	2 %	Eye Irrit. 2 / H319

* The full text of the H phrases is given in section 16

More information

SCL/M-Factor/ATE: not applicable.

Nano form: not applicable.

The actual concentration of the ingredients is a trade secret.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Mixture is not hazardous for the health of people, animals or for the environment. In case of sickness, consult a doctor. Information on health risk is based on hazardous substances of the compound.

Seek immediate medical attention in case of accident or if you feel unwell. Show the label where possible. In case of suspected steam/vapor in the air, use of respiratory protection (mask; insulating breathing apparatus) is mandatory. Emergency protection is required (mandatory protective equipment)! Immediately remove the victim from the accident site and remove contaminated clothing. Do not give anything to eat or drink an unconscious victim. In case the patient is unconscious, turn him to the side and ensure the airway is passable. If not breathing, resuscitation begins (artificial respiration with a breathing mask or manual method). WE DO NOT ARTIFICIAL BREATHING Mouth on Mouth!

Inhalation: Move victim to fresh air. In all cases of doubt or when symptoms persist, seek medical advice. If breathing is irregular or stops, seek medical help immediately and begin first aid measures. In case of irritation of the respiratory tract, consult a doctor.

Skin contact: Immediately remove contaminated clothing and footwear. Body parts that came into contact with the product should be washed with plenty of water and soapy water. Seek medical attention in case of irritation. Wash contaminated clothing and shoes before use.

Eye contact: Immediately flush open eyes, even under the eyelids, with plenty of lukewarm and running water. After 5 minutes of rinsing, remove contact lenses, if present, and continue rinsing for at least 15 minutes. Seek medical help (ophthalmologist).

Ingestion: Immediately rinse the mouth and drink plenty of water. DO NOT induce vomiting. In case of large amounts consumed, call a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

The mixture is not dangerous for human health, animals or the environment. No known symptoms or effects.

Symptoms/effects

Inhalation: liquid is non-volatile (slight ammonia smell).

Skin contact: contact may cause irritation.

Eye contact: product contact with eyes may cause mild and transient irritation.

Ingestion: ingestion of large quantities causes irritation and nausea.

Intravenous administration: no data.

Chronic symptoms: none according to current classification criteria.

4.3 Indication of any immediate medical attention and special treatment needed

First aid equipment: eyewash, safety shower.

Medical care: chemical eye injuries may require prolonged irrigation. Consult an ophthalmologist if possible. Treat chemical burns in the same way as thermal burns. Endotracheal and/or esophageal control is recommended in the event of gastric lavage. The substance may enter the lungs if swallowed or vomited and may cause lung damage. There is no specific antidote. Inform the doctor about the cause of the injury. Treatment is symptomatic (decontamination of vital functions).

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: it is a fire-extinguishing liquid, so no action is necessary.

Unsuitable extinguishing media: there are none.

5.2 Special hazards arising from the substance or mixture

At a temperature above 300°C, the liquid breaks down into N₂ and CO₂. Caution when extinguishing fires involving hazardous chemicals.

5.3 Advice for firefighters

Protective equipment for firefighters: protective fire-fighting clothing (EN 469) with helmet (EN 443), protective gloves (EN 659), footwear (EN 15090) which is well sealed with a suit and an autonomous self-contained breathing apparatus (EN 137). If this is not available, wear fully chemically resistant clothing with an autonomous breathing apparatus and extinguish from a remote location. Protective equipment for cleaning after fire or in the absence of fire is listed in Section 8.

Hazardous thermal decomposition or combustion products: the liquid decomposes into N₂ and CO₂.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with eyes and skin. Not for drinking. Leave the danger area immediately. Provide adequate ventilation. Remove unprotected persons. Prevent access by unauthorized persons.

6.2 Environmental precautions

Bonpet liquid itself is harmless to the environment when extinguishing a fire. Nevertheless, prevent the possibility of discharge of fire hoses into sewers, water bodies and groundwater. In case of pollution, observe the relevant legislation.

6.3 Methods and material for containment and cleaning up

Wash small amounts with a large amount of water, sprinkle larger amounts with absorbent material (sand, sink) and collect mechanically in marked inert packaging and dispose of according to the point below.

6.4 Reference to other sections

Dispose of in accordance with section 8 (protection), 12 (ecological data) and item 13 (disposal).

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

The product is not dangerous and does not require special handling. When working, it is only necessary to ensure compliance with the regulations for safe work. Close open containers tightly and follow the usual precautions when working with chemicals. Do not eat or drink during use.

7.2 Conditions for safe storage, including any incompatibilities

Store liquid in closed containers. Storage does not require any special equipment or special ventilation of the warehouse.

Storage class: 12 (non-combustible products).

7.3 Specific end use(s)

It can be seen from the technical sheet and product declaration.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Exposure limit values (Commission Directive 2000/39/EC, 2014/113/EU and 2017/164/EC; with all amendments and adaptations):

Rules on the protection of workers from risks due to exposure to chemical substances at work (Official Gazette of the Republic of Slovenia, No. 29/2024):

In Slovenia, there are no prescribed MV, BAT and EKA values for the ingredients listed in section 3.

8.2 Exposure controls

It is necessary to physically limit the work process, provide local ventilation or otherwise ensure that the exposure of workers is below the prescribed limit values in accordance with EN ISO 23861:2023, EN 689 and EN 482. Technical control measuring devices must keep the gas, vapor or dust concentration below any lower explosive limit. Use explosion-proof ventilation equipment. Ensure adequate ventilation. The ventilation system should be corrosion resistant.

Appropriate technical-technological control: during the execution of the work, proper foresight is necessary to prevent contamination of clothing and the floor, while absolutely avoiding contact with eyes and skin. Do not breathe vapours/dust/mists/aerosols. Avoid contact with skin and eyes. A safety shower and a tap with a jet of water for washing the eyes (with hot and cold water) must be available near the work area. Do not eat, drink or smoke and do not store food and drinks at the workplace. Follow normal hygiene precautions. Ensure adequate ventilation.

Personal protective equipment: in accordance with the PPE Regulation (EU Regulation 2016/425/EU) and the List of harmonized standards for PPE (OJ C 209/15.06.2018; with all changes and accommodations):

Respiratory protection: Not required.

If the limit values are exceeded, use a half-face or quarter-face mask EN 140 with an ABEK1 P2 filter EN 14387. Respiratory protection must comply with EN 529.

Hand protection: Protective gloves: nitrile (break time > 480 min., thickness 0.4 mm) – EN 388 and EN ISO 374. For prolonged contact, use protective gloves (breaking time > 480 min.) - EN 388 and/or EN ISO 374-1 and/or EN ISO 374-2 and/or EN 16523-1 and/or EN ISO 374-4 (protection against chemicals and microorganisms; protection level 6 or higher; category III).

The selection of gloves must also take into account all other required conditions at the workplace (other chemicals, physical requirements – cuts/punctures, thermal protection, reactions to the glove material, instructions from the glove supplier). Make skin regeneration stages. Preventive skin protection (protective creams/ointments) is recommended. Wash hands thoroughly after use.

Eye protection: Use safety glasses with side protection - EN ISO 16321-1,2,3 (label 3; protection level 2). Visibility through the lenses should be ideal. Therefore, these parts must be cleaned every day. Protectors should be regularly disinfected according to the manufacturer's instructions. Some signs of wear are: yellow color of the lenses, surface scratches of the lenses, etc.

Skin protection: Protective clothing made of cotton.

For long-term work, use antistatic protective clothing type 6; category III (EN ISO 13688 and/or EN ISO 11612 and/or EN ISO 17491-3 and/or EN ISO 17491-4 and/or or EN 13034) and EN 1149-5; antistatic safety footwear EN ISO 20345 (+A).

Footwear should be replaced as soon as signs of damage are visible. Footwear should be cleaned and dried regularly. When it is wet, it should not be placed near a heat source to avoid sudden temperature changes. Keep protective clothing separate. Remove contaminated clothing and footwear.

Personal protective equipment symbols



More information

Employers and the self-employed are legally responsible for the maintenance and issuance of PPE for respiratory protection and for their correct use at the workplace. Therefore, they must define and document an appropriate respiratory protection policy, including worker training.

Be sure to wash your hands after working with chemicals. Do not eat or drink while working. As soon as the working environment does not correspond to normal circumstances, it is necessary to consider extreme circumstances and find appropriate work instructions. The Regulations on the protection of workers from risks due to exposure to chemical substances at work and Council Directive 98/24/EC and 2014/27/EU (with all amendments and adaptations) must be observed.

Environmental exposure controls: see sections: 6.2, 6.3 and 13.

Thermal hazards: no information available.

User exposure controls: provide adequate ventilation and appropriate protective equipment.

Instructed measures to prevent exposure: emissions from the ventilation system and work process equipment must be checked to ensure compliance with environmental protection regulations.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on physical and chemical properties

Physical state	liquid
Colour	slightly colored liquid
Odour	faint smell of ammonia
pH	8.5 – 8.9
Melting point / freezing point	-14.5 °C
Initial boiling point/boiling range	103 °C
Flash point	non-existent
Evaporation rate	not specified
Flammability (solid, gas)	not flammable
Lower explosion limit	non-existent
Upper explosion limit	non-existent
Vapour pressure:	no information
Density	1.10 – 1.15 kg/l
Relativ density	no information
Solubility in water	completely soluble in water
Partition coefficient: n-octanol/water	no information
Ignition temperature	non-combustible
Decomposition temperature	above 300°C
Viscosity	no information
Explosive properties	not explosive
Oxidizing properties	not oxidative
Particle properties:	not relevant (liquid)

9.2 Other information

Hazard categories according to GHS (physical hazards): not classified - not relevant
Other safety features: not relevant

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No dangerous reactions are known under normal use.

10.2 Chemical stability

The material is stable under normal conditions of storage and use.

10.3 Possibility of hazardous reactions

They are not known.

10.4 Conditions to avoid

High temperatures. Decomposes at 300°C.

10.5 Incompatible materials

The product is non-reactive and compatible with most substances, except for strong oxidants. Store in original packaging.

10.3 Hazardous decomposition products

The liquid breaks down into CO₂ and H₂O in air. The decomposition process is faster at higher temperatures. At temperatures above 300°C, it decomposes into N₂ and CO₂.

SECTION 11: TOXICOLOGICAL INFORMATION

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

In the absence of experimental data for the product itself, health hazards are assessed based on the properties of the substances it contains, using the criteria set out in the applicable classification regulation. Therefore, the concentration of the individual hazardous substances listed in section 3 must be taken into account in order to assess the toxicological effects of exposure to the product.

Acute toxicity:	based on the available data, the classification criteria are not met.
Skin corrosion / irritation:	based on the available data, the classification criteria are not met.
Serious eye damage / irritation:	based on the available data, the classification criteria are not met.
Respiratory or skin sensitization:	based on the available data, the classification criteria are not met.
Germ cell mutagenicity:	based on the available data, the classification criteria are not met.
Carcinogenicity:	based on the available data, the classification criteria are not met.
Reproductive toxicity:	based on the available data, the classification criteria are not met.
STOT – single exposure:	based on the available data, the classification criteria are not met.
STOT – repeated exposure:	based on the available data, the classification criteria are not met.
Aspiration hazard:	based on the available data, the classification criteria are not met.

11.2 Information on other hazards

The substances listed in section 3 are not listed as having endocrine disrupting properties according to Article 57(f) REACH or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels 0, 1% or more.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

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

Handle in accordance with general hygiene standards. The product does not contain volatile components.

12.2 Persistence and degradability

It is biodegradable. Based on the results of toxicity tests and the certain biodegradability of Bonpet extinguishing liquid, according to Regulation 286/2011/EU it is not dangerous for the aquatic environment.

12.3 Bioaccumulative potential

The product does not bioaccumulate.

12.4 Mobility in soil

Bonpet fire extinguishing liquid is environmentally friendly and harmless to the aquatic environment, animals and plants. Based on the results of the tests, there are no reservations about the use of Bonpet extinguishing liquid when extinguishing fires outside closed spaces, as it does not noticeably affect the growth of plants and the life cycle of organisms in the soil.

12.5 Results of PBT and vPvB assessment

The product does not contain PBT and vPvB substances in a concentration of 0.1% or more.

12.6 Endocrine disrupting properties

The product does not contain substances considered to have endocrine disrupting properties according to Article 57(f) REACH or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or more.

12.7 Other adverse effects

Product residues can be discharged into the sewage treatment plant, as no negative effects are expected on the biological parts of the sewage treatment plant, as long as it is ensured that the extinguishing liquid is at least 1:100 diluted with other waters. It is necessary to ensure that the sewage system is not overloaded with excessive amounts of extinguishing liquid.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Waste and surplus of pure product recycled or disposed of in accordance with the Waste Regulation (Directive 2006/12/EC, 2008/98/EC and 2018/851/EU; with all adjustments and changes).

Recommendation

It must not be disposed of together with household waste. Product residues can be discharged into the sewage treatment plant, as no negative effects are expected on the biological parts of the sewage treatment plant, as long as it is ensured that the extinguishing liquid is at least 1:100 diluted with other waters. It is necessary to ensure that the sewage system is not overloaded with excessive amounts of extinguishing liquid.

The waste number is determined based on the agreement with the waste disposal company.

13.2 Contaminated packaging

Removal of packaging in accordance with the Decree on the Management of Packaging and Packaging Waste (Directive 94/62/EC, 2013/2 EU and 2018/852/EU; with all adjustments and changes).

Recommendation for contaminated packaging

Thoroughly empty the contaminated packaging. It can be recycled after thorough and proper cleaning. Packaging that cannot be cleaned must be disposed of in the same way as the product.

Recommended cleaning agents: water.

Returnable packaging

After optimal emptying, close it immediately and return it to the supplier uncleaned. Care must be taken that no other material enters the packaging.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number or ID number: /

14.2 UN proper shipping name: /

14.3 Transport hazard class(es): /

14.4 Packing group: /

14.5 Environmental hazards: /

14.6 Special precautions for user: keep away from medicines and food and see section 8 (protection).

14.7 Maritime transport in bulk according to IMO instruments: /

According to current regulations for ADR/RID, the product is not classified as dangerous good.

According to current regulations for IMDG/GGV, the product is not classified as dangerous good.

According to current regulations for ICAO/IATA, the product is not classified as dangerous good.

SECTION 15: REGULATORY INFORMATION

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

Restrictions set out in Annex XVII of the REACH regulation (EC) no. 1907/2006: no information available.

SEVESO substance: not SEVESO substance.

Substances on the SVHC candidate list (REACH Article 59): the substances listed in section 3 are not on the candidate list.

Substances subject to authorization (REACH Annex XIV): substances listed in section 3 are not subject to authorisation.

Substances subject to export reporting in accordance with Regulation (EU) no. 649/2012 (PIC procedure): the product is not subject to the PIC procedure.

Substances subject to the Stockholm Convention (persistent organic pollutants Regulation EC No. 850/2004): substances listed in section 3 are not subject to the Convention.

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment - Annex II: the substances listed in section 3 are not listed.

Regulation on the Marketing and Use of Precursors for Explosives: the substances referred to in Section 3 are not listed.

Regulation on Precursors to Illicit Drugs: substances listed in Section 3 are not listed.

Regulation on substances that deplete the ozone layer: substances listed in section 3 are not listed.

EU regulations (with all amendments and additions)

- REACH Regulation (EC Regulation No. 1907/2006)
- Regulation (EC) no. 1272/2008 on the classification, labeling and packaging of substances and mixtures, on the amendment and repeal of directives 67/548/EEC and 1999/45/EC and the amendment of Regulation (EC) no. 1907/2006

- 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 on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)
- Directive no. 89/391/EEC, 89/654/EEC, 89/655/EEC, 89/656/EEC, 90/269/EEC, 90/270/EEC, 90/394/EEC, 90/679/EEC, 93/ 88/EEC, 95/63/EC, 97/42/EC, 98/24/EC, 99/38/EC, 99/92/EC, 2001/45/EC, 2003/10/EC, 2003/18/ ES (health and safety at work)
- Directive no. 98/24/EC (on protecting the health and ensuring the safety of workers from risks due to exposure to chemical factors at work)
- Directive no. 92/85/EC (on the introduction of measures to promote improvements in the field of safety and health at work for pregnant workers and workers who have recently given birth or are breastfeeding)
- List of harmonized standards for personal protective equipment (C 412/11.12.2015)
- Commission Implementing Decision (EU) 2023/941 of 2 May 2023 on harmonized standards for personal protective equipment prepared in support of Regulation (EU) 2016/425 of the European Parliament and of the Council
- REGULATION (EU) 2016/425 on personal protective equipment and the repeal of Council Directive 89/686/EEC
- Commission Implementing Decision (EU) 2020/668 on harmonized standards for personal protective equipment prepared in support of Regulation (EU) 2016/425
- Directive no. 2012/18/EC (on managing the risk of major accidents involving hazardous substances)
- Directive no. 2004/42/EC (on the limitation of emissions of volatile organic compounds) Substances that deplete the ozone layer (1005/2009) - Appendix I Substances (ODP)
- Regulation (EC) no. 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC
- EU Regulation (649/2012) - on the export and import of dangerous chemicals (PIC)
- Agreement on the international transport of dangerous goods by road - ADR (Council Directive 94/55/EC and Council Directive 2008/68/EC)

National legislation (with all amendments)

- Adopted EU directives on health and safety at the workplace at the national level
- Adopted EU directives on managing the risk of major accidents involving dangerous substances (2012/18/EC) at the national level
- Relevant national laws on the prevention of water pollution
- Relevant national legislation on protecting the health of pregnant workers (transposition of Directive 92/85/EEC into national legislation)
- Chemicals Act (Official Gazette of the Republic of Slovenia, No. 110/03 – official consolidated text, 47/04 – ZdZPZ, 61/06 – ZBioP, 16/08, 9/11 and 83/12 – ZFfS-1)
- Regulation on packaging and waste packaging (Official Gazette of the RS, No. 54/21, 208/21, 44/22 – ZVO-2 and 120/22)
- Regulation on waste (Official Gazette of the Republic of Slovenia, No. 37/15, 69/15, 129/20, 44/22 – ZVO-2 and 77/22)
- Decision on the publication of Annexes A and B to the European Agreement on the International Carriage of Dangerous Goods by Road /ADR/ (Official Gazette of the Republic of Slovenia, No. 9/03, 66/03, 9/05, 9/07, 125/08, 97/10 , 14/13, 10/15, 9/17, 8/19, 9/23)
- Decision on the publication of the Rules on the International Transport of Dangerous Goods by Rail (RID) and amendments and additions to the Rules on the International Transport of Dangerous Goods by Rail (RID) for the years 2011, 2013, 2015, 2017, 2019, 2021, 2023
- Rules on technical and organizational measures for the storage of dangerous chemicals (Official Gazette of the Republic of Slovenia, No. 23/18 and 123/22)
- Act on Safety and Health at Work (Official Gazette of the Republic of Slovenia, No. 43/11)
- Rulebook on amendments to the Rulebook on the Protection of Workers from Risks Due to Exposure
- Chemical Substances at Work (Official Gazette of the Republic of Slovenia, No. 29/2024)
- Regulations on the protection of workers from risks due to exposure to carcinogenic, mutagenic or reprotoxic substances at work (Official Gazette of the Republic of Slovenia, No. 29/2024)
- Rules on personal protective equipment used by workers at work (Official Gazette of the Republic of Slovenia, no. 89/99, 39/05, 43/11 – ZVZD-1 and 181/21)
- Regulation on the implementation of the Regulation (EU) on personal protective equipment (Official Gazette of the Republic of Slovenia, No. 33/18)

15.2 Chemical safety assessment

A chemical safety assessment for the mixture has not been carried out.

SECTION 16: OTHER INFORMATION

16.1 Indication of changes

Changes to the safety data sheet are due to alignment with Commission Regulation (EU) no. 2020/878.

16.2 Meaning of abbreviations

Abbreviations	Meaning
ADR	Agreement concerning the International Carriage of Dangerous Goods by Road
RID	Regulations Concerning the International Transport of Dangerous Goods by Rail
IATA	International Air Transport Association
IMDG	International Maritime Code for Dangerous Goods
IMO	International convention for the prevention of pollution from ships
vPvB	a substance that is very persistent and can accumulate in organisms
PBT	hardly biodegradable, bioaccumulative and toxic
REACH	Regulation (EC) no. 1907/2006 of the European Parliament and of the Council on the registration, evaluation, restriction of chemicals
CLP	Regulation (EC) no. 1272/2008 on classification, labeling and packaging of substances and mixtures
CAS	(Chemical Abstracts Service) is a division of the American Chemical Society authorized to assign a unique numerical identifier to every chemical ever described in the literature. The purpose of the identifier is to simplify database searches because chemicals often have multiple names
KTV	The short-term value (KTV - STL) means the concentration of a hazardous chemical substance in the air at the workplace within the inhalation zone, to which a worker can be exposed for a short time without risking health. Exposure to a short-term value may last no more than 15 minutes and may not be repeated more than four times during a work shift, and at least 60 minutes must elapse between two exposures to this concentration. The short-term value is expressed in mg/m ³ or in ml/m ³ (ppm), and it is given as a multiple of the permissible exceeding of the limit value.
MV	Limit value - means the average concentration of a dangerous chemical substance in the air at the workplace, within the inhalation zone, which generally does not harm the health of the worker, if the worker works at a concentration of dangerous chemical substances in the air at the workplace, which is less than or equal to the limit value of a dangerous chemical substances, 8 hours a day / 40 hours a week full-time, under normal micro-climate conditions and physically light work. The limit value applies to an 8-hour exposure and is given at a temperature of 20°C and a pressure of 1,013,105 Pa. It is given as the amount of a hazardous chemical substance in a unit of volume. It is expressed in mg/m ³ or ml/m ³ (ppm). The exception is fibrous substances. The concentration of fibrous substances is expressed in the number of fibers per unit volume (v/l/m ³). The fiber must meet the conditions: length (l) > 5µm, diameter (d) < 3 µm, length (l) : diameter (d) > 3:1.
BAT	Biological limit value - a biological limit value is determined, which means a warning level of a dangerous chemical substance and its metabolites in tissues, body fluids or exhaled air, regardless of whether the dangerous chemical substance is introduced into the organism by inhalation, ingestion or through the skin.
ATE	Acute Toxicity Estimate
DNEL	Derived No-Effect Level
A	alveolar fraction – the portion of inhaled suspended matter that reaches the alveoli
I	inhalable fraction – the portion of the total suspended matter inhaled by the worker
EC50	median effective concentration
ErC50	median effective concentration in terms of reduction of growth rate
IC50	the mean concentration causing a 50% inhibition of a parameter, e.g. to grow
LC50	median lethal concentration
LD50	median lethal dose

16.3 Meaning of H phrases and classification

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

Acute Tox. 4: Acute toxicity, category 4

Eye Irrit. 2: Eye irritation, category 2

16.4 Mixture classification

The safety data sheet is prepared on the basis of existing legislation, the results of testing effects on the skin, eyes, water and soil, and the safety data sheet of the supplier:

- ammonium bicarbonate – date 20.02.2012, version 1.2
- ammonium carbonate – date 26.01.2012, version 8.0
- SKUM AFFF 3% UG – date 9.6.2023, version 4

16.5 Other

Training tips

Persons handling with this product must receive the information from this safety data sheet, in particular information on possible hazards, safe handling and correct handling.

Responsible limit

This safety data sheet complies with Commission Regulation (EU) no. 2020/878) on the basis of available information, in the best faith and with the belief of the accuracy of the data at the above-mentioned effective date. The information in the safety data sheet is important for safe handling, storage, transport of chemicals and waste disposal.

The stated information refers to our knowledge and experience and is accurate and reliable on the date of creation of the Safety Data Sheet. The user is obliged to determine the suitability of the data in the Safety Data Sheet according to his specific use of the product. The product must not be used for any other purpose, except for what is described in section 1. In the event that the data in the Safety Data Sheet is not sufficient in terms of the scope, nature and conditions of working with the chemical, the user is obliged to obtain additional information. The user is also obliged to study all valid regulations in force and act in accordance with them (in the field of safety at work, waste, transport, etc.).

The information in the Safety Data Sheet describes the requirements necessary for the safe handling of our product and does not constitute a guarantee for the quality of the product. In case of non-observance of the measures described in the Safety Data Sheet or improper use of the product, we are not responsible for the consequences.