

SAFETY DATA SHEET

according to Regulation EU 1907/2006

Date of issue: 01.03.2012

Date of revision: 08.05.2019

Version no.: 3.1

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product: **FEX fire extinguishing liquid**

Code(s) of the product: 12650

1.2 Important identified uses of the substance and not advisable uses

Purpose, scope of application: Extinguishing fire.

Use restrictions: The product is intended for industrial and professional use.

Application method: It is used in fire-extinguishing systems and for professional use.

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

info@bonpet.si

Information about the safety data sheet: Phone number +386 3 56 14 720

Distributor: **FEX Sistem's Kft, Andrassy út 68, 1062 Budapest, HUNGARY**

1.4 Emergency telephone number

In the case of health problems consult a doctor, in case of life hazard call your local emergency telephone number. Additional information available on +386 3 56 14 720 from 8⁰⁰ until 15⁰⁰.

2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 Classification in accordance with the Directive 1272/2008 EC

In accordance with the EU legislation, the fire-extinguishing liquid is not classified as hazardous substance.

Health: The fire-extinguishing liquid is not intended for drinking. No eye irritation.

Environment: The fire-extinguishing liquid is very biodegradable. Follow the recommendations of disposal referred to chapter 13 of the safety data sheet.

2.1.2 Classification in accordance with the Directive 67/548/EEC or 99/45/EC

The fire-extinguishing liquid is not classified as hazardous substance.

2.2 Label elements

The product is not classified as a hazardous substance.

2.3 Other hazards

This compound does not contain substances that are considered persistent, bio-accumulative or poisonous or very persistent or very bio-accumulative.



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3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances /Mixtures

The fire-extinguishing liquid FEX is a mixture of non-hazardous additives and substances listed below:

Substance	CAS no.	ECC no.	Conc. %	Classification 1272/2008/ES (CLP)	Classification 67/548/EEC
Ammonium carbonate $\text{CH}_2\text{O}_3 \cdot x\text{H}_3\text{N}$	10361-29-2	233-786-0	3	AcuteTox.4 oral H302	X _n ; R22
Ammonium hydrogen carbonate $\text{CH}_2\text{O}_3 \cdot \text{H}_3\text{N}$	1066-33-7	213-911-5	3	AcuteTox.4 H302	X _n ; R22
Towalex AFFF 3% UL			2	Eye Irrit. 2 H319	Xi; R36

3.2 Additional instructions

Complete text of R and H phrases mentioned in this chapter can be found in chapter 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

The substance 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.

Inhalation:	The liquid is not volatile (slight ammonia smell). Injured person should be transferred to fresh air. In case of respiration difficulties give mouth-to-mouth respiration and find medical help.
Contact with skin:	Remove contaminated clothes. Wash with soap and wash with a large amount of water.
Contact with eyes:	Wash eyes with a large amount of water (10 – 15 minutes). If the irritation does not cease, consult a doctor.
Ingestion:	Wash mouth with water and drink a lot of water. In case of ingestion of a large amount, find medical help.

4.2 Most important symptoms and effects, both acute and delayed

Not known.

4.3 Indication of any immediate medical attention and special treatment needed

Inform the doctor about the reason of the injury and, if possible, show the label or safety data sheet. Other data not available.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

It is a fire-extinguishing liquid, therefore no measures are necessary.

5.2 Special hazards arising from the substance or mixture

At the temperature over 300 °C the liquid decomposes N₂ and CO₂.

5.3 Advice for fire-fighters



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Precautions for fire-fighting: use caution in fighting fires where hazardous chemicals are present.

Fire fighting instructions: Not required.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Prevent contact with eyes and skin. Not potable.

6.2. Environmental precautions

The FEX liquid itself is not hazardous for the environment. However, prevent the possibility of emission of firewater into sewage system, water reservoirs and groundwater. In case of pollution, consider adequate legislation.

6.3. Methods and material for containment and cleaning up

Small amounts should be washed with a large amount of water, large amounts should be covered by an absorbent material (sand) and mechanically collected into a labelled inert packaging and removed in accordance with the regulations in chapter 13.

6.4. Reference to other sections

The waste should be stored and disposed of in accordance with the provisions of Chapter 7 or 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

The product is not hazardous and does not require special handling. At work it is only important to assure compliance with the work safety regulations. Open containers must be closed tightly and safety measures, related to work with chemicals, must be taken into consideration. Do not eat or drink during the use.

7.2 Conditions for safe storage, including any incompatibilities

Liquid must be stored in closed containers. Storage does not require any special equipment or ventilation.

7.3. Specific end use(s)

Legible from the technical sheet and the declaration of the product.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1. Control parameters

Keep away from food and drink.

8.2. Exposure controls

Adequate technical and technological supervision:	Safety measures listed in chapter 7.
Personal safety precautions:	Maintain a clean work environment. Do not eat or drink during work. After work wash, undress and wash the contaminated clothes.
Eye/face protection:	In case of possibility of direct contact with the product, use safety goggles.
Skin protection:	Wear cotton protective clothing.
Hand protection:	Safety gloves: Material: Nitrile rubber, Penetration time: > 480 min, thickness: 0,4 mm.
Respiratory tract protection:	Not necessary



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Heat hazard:	No data available.
Other:	No data available.
Environment exposure supervision	Apply environmental protection measures.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Colour	Slightly coloured liquid
Smell	Slight ammonia smell
pH	9,06
density	1.10 kg/l
Flammability	Not flammable
Solubility in water at 20°C in g/l	Completely soluble in water
Freezing point	< 0°C
Boiling point	103°C
Flashpoint	Non-existent
Explosion point	Non-existent
Ignition temperature	Non-existent
Decomposition temperature	above 300°C
Decomposition products	N ₂ , CO ₂ , H ₂ O

9.2 Other information

Not known.

10. STABILITY AND REACTIVITY

10.1 Reactivity

Dangerous reactions when used normally are not known.

10.2 Chemical stability:

At normal storage and use conditions the material is stable.

10.3 Possibility of hazardous reactions

Not known.

10.4 Conditions to avoid

High temperatures. Decomposes at 300°C.

10.5 Incompatible materials

The product is not reactive and is compatible with most substances, except strong oxidising agents. Store in original container.

10.6 Hazardous decomposition products

Exposed to air, the liquid decomposes to CO₂ in H₂O. Decomposition process is faster at higher temperatures. At the temperature over 300°C the liquid decomposes to N₂ and CO₂.

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11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

The product is classified according to the conventional method (calculated) of Directive 1999/45 / EC of the Dangerous Preparations Directive and on the basis of testing the effects on wastewater and effects in the ground and it is adequately classified in accordance with the toxicological hazard. Details in chapters 2 and 3.

Acute toxicity:	The liquid does not endanger health and is biologically degradable. When used professionally and in accordance with the instruction, no disadvantageous effect is known.
Eye irritation:	No irritant effect.
Skin irritation:	No irritant effect.
Respiratory tract sensitisation:	No data available.
Skin sensitisation:	No data available.
Chronic toxicity	No data available.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

The product is not classified as environmentally hazardous on the basis of the components data from point 2 of the safety data sheet. The product does not contain volatile components.

12.2. Persistence and degradability

Bio-degradable. Based on the results of toxicity tests and determination of biodegradability extinguishing fluid FEX, under Regulation 286/2011 / EU is not hazardous to the aquatic environment.

12.3. Bio accumulative potential

No data available.

12.4. Mobility in soil

Fire-extinguishing liquid FEX is environment friendly and harmless to aquatic environment and to animals and plants. Based on the results of the performed tests, there are no impediments to the use of extinguishing fluid FEX in fighting fires outside of enclosed spaces, because there are no noticeable effect on plant growth and life cycle of organisms in the soil.

12.5. Results of PBT and vPvB assessment

No data available. Study on chemical safety has not been carried out.

12.6. Other adverse effects

Does not bio accumulate.

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13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste disposal: Residues of the preparation can be discharged into a sewage treatment plant, because there are no negative effects on the biological parts of the treatment plant, as long as it is ensured that the extinguishing fluid at least in the ratio of 1: 100 diluted with other waters. It is necessary to ensure that the sewerage system does not fail the excessive amounts of extinguishing fluid.

Packaging disposal: Damaged packaging or packaging containing residues management: Packaging must be emptied completely and treated in accordance with the Decree on packaging and waste packaging management, and residues in accordance with Decree on waste management.

Residue code: Residue code is defined on the basis of a consultation with the waste remover.

14. TRANSPORT INFORMATION

14.1 Railroad and road transport (RID/ADR)

According to the rules in force the product is not classified as hazardous, therefore no data is available on their classification according to ADR/RID.

14.2. IMDG/GGV sea

According to the rules in force the product is not classified as hazardous, therefore no data is available on their classification according to IMDG/GGV.

14.3. ICAO/IATA

According to the rules in force the product is not classified as hazardous, therefore no data is available on their classification according to ICAO/IATA.

15. REGULATORY INFORMATION

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

Decree (ES) no. 1907/2006, Decree 1999/45/ES with all modifications, Decree (ES) no. 1272/2008: The product does not classify as a dangerous chemical. Not due under the REACH restrictions in Annex XVII. Does not contain substances which are candidates for entry into the system of REACH.

Chemicals Act

Regulations on classification, packaging and labeling of dangerous substances

Regulations on classification, packaging and labeling of dangerous preparations

Regulation on waste management

Regulation on the management of packaging and packaging waste

The decision on the publication of Annexes A and B to the European Agreement concerning the International Carriage of Dangerous Goods / ADR /

Regulation on the protection of workers from the risks related to chemical agents at work

Rules on technical and organizational measures for the storage of hazardous chemicals

15.2. Chemical safety assessment:

Chemical safety assessment was not carried out.



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16. OTHER INFORMATION

16.1 Importance of R phrases from chapter 3

Complete R phrase text mentioned in chapter 3:

R 22 Harmful if swallowed.

R 36 Irritating to eyes.

16.2 Importance of H phrases from chapter 3

Complete H phrase text mentioned in chapter 3:

H302 Harmful if swallowed

H319 Causes serious eye irritation

16.3 Other information

AcuteTox.4 oral: Acute toxicity, category 4

This safety data sheet was written in accordance with the applicable legislation. The information's in the safety data sheet are important for safe handling, storage and transport of chemicals and for waste removal.

The information stated refers to our knowledge and experience and are exact and reliable on the day of the creation of the Safety data sheet. The user must find assess the adequacy of the data in the Safety data sheet according to the specific use of the product. The product may not be used for other intentions but those described in chapter 1. In case the data in Safety data sheet do not suffice according to the work extent, nature and conditions, the user must obtain additional information. The user is also obliged to study all applicable regulations and act in accordance with them (from the field of safety at work, waste, transport, etc.).

The information in the Safety data sheet describes requirements necessary for a safe treatment with our product and do not represent a product quality guarantee. In case of non-compliance with the measure described in the Safety data sheet or inappropriate use of the product, we cannot be held responsible for the consequence.

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

- Ammonium bicarbonate – date 20.02.2012, version 1.2
- Ammonium carbonate – date 26.01.2012, version 8.0
- Towalex AFFF 3% UL – date 20.4.204, version 1