

**1. IDENTIFICATION OF THE SUBSTANCE/COMPOUND AND COMPANY****1.1 Identification of the product:**

Product:	<b>Bonpet fire-extinguishing liquid</b>
Code(s) of the product:	020005 NOTE: Safety data sheet only applies to the fire-extinguishing liquid without packing. It applies to all packing units from 10 to 1000 litres.

**1.2 Important identified uses of the substance or compound 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 fire-extinguishing products

**1.3 Details about the supplier of the safety data sheet:**

Producer:	BONPET SYSTEMS d.o.o. Obrtniška cesta 30 SI 1420 TRBOVLJE SLOVENIA Phone: +386 3 56 14 720 Fax: +386 3 56 14 722
Information about the safety data sheet:	<a href="mailto:info@bonpet.si">info@bonpet.si</a> Phone number +386 3 56 14 720

**1.4 Emergency phone number:**

Telephone:	In 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 8 until 15.00.
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**2. HAZARD IDENTIFICATION****2.1 Classification of substance or compound:**

Classification in accordance with the Directive 1999/45/EC and the regulation 1272/2008 EC:  
In accordance with the EU legislation, the fire-extinguishing liquid is not classified as hazardous substance.

<b>Health:</b>	The fire-extinguishing liquid is not intended for drinking. No negative effects of the liquid in contact with skin are known.
<b>Environment:</b>	The fire-extinguishing liquid is neutral, soluble in water and does not represent any special hazards for the environment if the disposal recommendations from chapter 13 of the safety data sheet are taken into consideration.

**2.2 Label elements:**

The product is not classified as a hazardous substance.

**213.911 Other hazards:**

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

### 3. STRUCTURE/CONSTITUENTS DATA

#### 3.1 Introduction

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

Substance	CAS no.	ECC no.	Conc. %	Classification 1999/45/ES		Classification 1272/2008/ES	
				label	R phrases	Cat. of hazard	Hazard phr.
Ammonium carbonate CH <sub>2</sub> O <sub>3</sub> -xH <sub>3</sub> N	10361-29-2	233-786-0	3	X <sub>n</sub>	22	AcuteTox. 4 oral	H302
Ammonium hydrogen carbonate CH <sub>2</sub> O <sub>3</sub> -H <sub>3</sub> N	1066-337	213-911-5	3	X <sub>n</sub>	22	AcuteTox. 4	H302
Towalex AFFF 3% UL			2	X <sub>i</sub>	36	Eye Irrit. 2	H319

#### 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 First aid measures description:

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.

<b>Inhalation:</b>	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.
<b>Contact with skin:</b>	Remove contaminated clothes. Wash with soap and wash with a large amount of water.
<b>Contact with eyes:</b>	Wash eyes with a large amount of water (10 – 15 minutes). If the irritation does not cease, consult a doctor.
<b>Ingestion:</b>	Wash mouth with water and drink a lot of water. In case of ingestion of a large amount, find medical help.

#### 4.2 The most important symptoms and effects, acute and delayed

Not known.

#### 4.3 Medical attendance and special treatment

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

### 5. FIRE PREVENTION MEASURES

#### 5.1 Fire-extinguishing media:

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

#### 5.2 Special hazards related to the substance or compound:

At the temperature over 300°C the liquid decomposes to N<sub>2</sub> and CO<sub>2</sub>

#### 5.3 Advice for fire-fighters

Not necessary.

### 6. ACCIDENTAL EMISSION MEASURES

#### 6.1 Personal safety measures, protective equipment and emergency procedures:

Prevent contact with eyes and skin. Not potable.

#### 6.2. Environmental measures:

The Bonpet 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. Purification methods/collecting in case of accidental emission:

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

### 7. HANDLING AND CONSERVATION

#### 7.1 Safety measures for safe treatment:

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 Safe storage conditions, including incompatibility:

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

#### 7.3. Special final utilizations:

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

Packaging materials:

- Recommended – producer's original packaging
- Inadequate – do not stream into any other but original and labelled containers.

### 8. EXPOSURE SUPERVISION/PERSONAL PROTECTION

#### 8.1. Supervision parameters:

Keep away from food and drink.

#### 8.2. Exposure supervision:

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

**9. PHYSICAL AND CHEMICAL PROPERTIES****9.1 Basic physical and chemical properties data:**

Physical state	Liquid
Colour	Slightly coloured liquid
Smell	Slight ammonia smell
pH	8 – 8,5
density	1.1 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 <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> O

**9.2 Other data:**

Not known.

**10. PERSISTENCE AND BEHAVIOUR OF SUBSTANCE****10.1. Behaviour of substance:**

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 dangerous reactions:**

Not known.

**10.4 Conditions that must be avoided:**

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 Dangerous decomposition products:**Exposed to air, the liquid decomposes to CO<sub>2</sub> in H<sub>2</sub>O. Decomposition process is faster at higher temperatures. At the temperature over 300°C the liquid decomposes to N<sub>2</sub> and CO<sub>2</sub>**11. TOXICOLOGICAL DATA****11.1 Toxicological effects data:**

The product itself is not tested but classified in accordance with a conventional method (calculated) of the Directive 1999/45/ES about dangerous products 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.

Skin irritation:	Low possibility with very sensitive people
Eye irritation:	Low possibility with very sensitive people
Skin irritation:	Low possibility with very sensitive people
Respiratory tract sensitisation:	No data available.
Skin sensitisation:	No data available.
Chronic toxicity	No data available.

### 12. ECO-TOXICOLOGICAL DATA

Evaluation of ecological receptivity of the product is not available.

#### 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.

#### 12.3. Bioaccumulation:

No data available.

#### 12.4. Mobility in ground:

Fire-extinguishing liquid BONPET is environment friendly and harmless to aquatic environment and to animals and plants.

#### 12.5. PBT and vPvB estimate results:

No data available.

#### 12.6. Other disadvantageous effects:

Does not bioaccumulate.

### 13. REMOVAL

#### 13.1 waste management methods:

Waste disposal:	Preparation residues can be disposed by a purification facility in accordance with the Decree on waste management or with local or national regulations.
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. Emptied and cleaned packaging can be used again for packaging of the product or it can be removed in accordance with the Decree on packaging and waste packaging management.
Residue code	Residue code is defined on the basis of a consultation with the waste remover.

### 14. TRANSPORT DATA

#### 14.1 Railroad and road transport (RID/ADR):

According to the rules in force the product is not classified as hazardous.

#### IMDG/GGV sea

According to the rules in force the product is not classified as hazardous.

#### ICAO/IATA

According to the rules in force the product is not classified as hazardous.

**15. STATUTORY DATA****15.1 Health, safety and environment regulations/legislation, specific for the substance or compound:**

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.**

**15.2. Chemical safety assessment:**

Chemical safety assessment was not carried out.

**16. OTHER DATA****16.1 Importance of R phrases from chapter 3:**

Complete R phrase text mentioned in chapter 3:

R 22 Harmful by ingestion

R 36 Irritates eyes.

**16.2 Importance of H phrases from chapter 3:**

Complete H phrase text mentioned in chapter 3:

H302 Harmful by ingestion

H319 causes eye irritation

**16.2 Changes from previous edition:**

Safety data sheet is consistent with the EU Decree 1907/2006 in all parts of the safety data sheet.

**16.3 Other information:**

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 and the supplier's safety data sheet for:

- Ammonium bicarbonate – date 20<sup>th</sup> Feb. 2012, version 1.2
- Ammonium carbonate – date 26<sup>th</sup> Jan. 2012, version 8.0
- Towalex AFFF 3% UL – date 20<sup>th</sup> April 2004, version 1