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

1.1. Product identifier

FoamFix

Further trade names

Product code: 70972, 70973

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

Use of the substance/mixture

Professional use. Polyurethane
Aerosol

Uses advised against

Any non-intended use.

1.3. Details of the supplier of the safety data sheet

Company name:	OASE GmbH	
Street:	Tecklenburger Straße 161	
Place:	D-48477 Hörstel	
Telephone:	+49 (5454) 800	Telefax: +49 (5454) 8090
e-mail:	info@oase-livingwater.com	
Contact person:	Markus Dreyer; Forschung und Entwicklung	Telephone: +49 (5454) 80450
e-mail:	m.dreyer@oase-livingwater.com	
Internet:	www.oase-livingwater.com	
Responsible Department:	Dr. Gans-Eichler Chemieberatung GmbH Raesfeldstr. 22 D-48149 Münster	e-mail: info@tge-consult.de Tel.: +49(0)251/394868-69 www.tge-consult.de

1.4. Emergency telephone number:

Beratungsstelle für Vergiftungserscheinung in Berlin: +49 (30) - 30686 790

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:
Aerosol: Aerosol 1
Acute toxicity: Acute Tox. 4
Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Irrit. 2
Respiratory or skin sensitisation: Resp. Sens. 1
Respiratory or skin sensitisation: Skin Sens. 1
Carcinogenicity: Carc. 2
Specific target organ toxicity - single exposure: STOT SE 3
Specific target organ toxicity - repeated exposure: STOT RE 2
Hazard Statements:
Extremely flammable aerosol.
Pressurised container: May burst if heated.
Harmful if inhaled.
Causes skin irritation.
Causes serious eye irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
Suspected of causing cancer.

May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

Polymeric methylenediphenyl diisocyanate (MDI)

Signal word: Danger

Pictograms:

Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P362+P364	Take off contaminated clothing and wash it before reuse.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501	Dispose of contents/container to local/regional/national/international regulations.

Special labelling of certain mixtures

EUH204	Contains isocyanates. May produce an allergic reaction.

Additional advice on labelling

Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

2.3. Other hazards

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
115-10-6	dimethyl ether			> 1 %

	204-065-8	603-019-00-8	01-2119472128-37	
	Flam. Gas 1, Compressed gas; H220 H280			
9016-87-9	Polymeric methylenediphenyl diisocyanate (MDI)			> 25 %
		615-005-01-6		
	Carc. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, STOT RE 2; H351 H332 H315 H319 H334 H317 H335 H373			
	Reaction mass of tris(2-chloropropyl) phosphate and tris(2-chloro-1-methylethyl) phosphate and Phosphoric acid, bis(2-chloro-1-methylethyl) 2-chloropropyl ester and Phosphoric acid, 2-chloro-1-methylethyl bis(2-chloropropyl) ester			1 - 25 %
	911-815-4		01-2119486772-26	
	Acute Tox. 4; H302			
74-98-6	propane			1 - 10 %
	200-827-9	601-003-00-5	01-2119486944-21	
	Flam. Gas 1, Liquefied gas; H220 H280			
75-28-5	isobutane			1 - 10 %
	200-857-2	601-004-00-0	01-2119485395-27	
	Flam. Gas 1, Liquefied gas; H220 H280			

Full text of H and EUH statements: see section 16.

Further Information

Product does not contain listed SVHC substances > 0,1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. In case of skin irritation, seek medical treatment.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

If swallowed, immediately drink: Water. Never give anything by mouth to an unconscious person or a person with cramps. Do NOT induce vomiting. Caution if victim vomits: Risk of aspiration! Call a physician immediately.

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

No information available.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Foam. Carbon dioxide. Extinguishing powder.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Combustible. Vapours may form explosive mixtures with air. Can be released in case of fire: Carbon dioxide (CO2). Carbon monoxide Phosphorus oxides

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains. In case of fire and/or explosion do not breathe fumes.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ventilate affected area. Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Wear personal protection equipment (refer to section 8). Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Explosion hazard. Eliminate leaks immediately. Prevent spread over a wide area (e.g. by containment or oil barriers). In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Treat the recovered material as prescribed in the section on waste disposal.
Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use only in well-ventilated areas. Take precautionary measures against static discharges. Do not spray on naked flames or any incandescent material. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches.
Wear suitable protective clothing. (See section 8.)

Advice on protection against fire and explosion

Keep away from sources of ignition. - No smoking. Heating causes rise in pressure with risk of bursting.

Further information on handling

General protection and hygiene measures: refer to chapter 8

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. Keep away from sources of ignition. - No smoking. Provide adequate ventilation.

Advice on storage compatibility

Do not store together with: Gas. Explosives. Flammable solids. Pyrophoric liquids and solids. Self-heating

substances and mixtures. Substances and mixtures which, in contact with water, emit flammable gases. Oxidizing liquids. Oxidizing solids. Self-reactive substances and mixtures. Organic peroxides. Radioactive substances.
Infectious substances.

Further information on storage conditions

Recommended storage temperature: 10-30°C. Do not store at temperatures over: 50°C
Note: Storage requirements for flammable aerosols TRG 300

7.3. Specific end use(s)

See section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
115-10-6	Dimethyl ether	400	766		TWA (8 h)	WEL
		500	958		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
115-10-6	dimethyl ether		
Worker DNEL, long-term	inhalation	systemic	1894 mg/m³
Consumer DNEL, long-term	inhalation	systemic	471 mg/m³
	Reaction mass of tris(2-chloropropyl) phosphate and tris(2-chloro-1-methylethyl) phosphate and Phosphoric acid, bis(2-chloro-1-methylethyl) 2-chloropropyl ester and Phosphoric acid, 2-chloro-1-methylethyl bis(2-chloropropyl) ester		
Worker DNEL, long-term	inhalation	systemic	8,2 mg/m³
Worker DNEL, acute	inhalation	systemic	22,6 mg/m³
Worker DNEL, long-term	dermal	systemic	2,91 mg/kg bw/day
Consumer DNEL, acute	inhalation	systemic	5,6 mg/m³
Consumer DNEL, long-term	dermal	systemic	1,04 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	0,52 mg/kg bw/day
Consumer DNEL, acute	oral	systemic	2 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	1,45 mg/m³

PNEC values

CAS No	Substance
Environmental compartment	Value
115-10-6	dimethyl ether
Freshwater	0,155 mg/l
Freshwater sediment	0,681 mg/kg
Micro-organisms in sewage treatment plants (STP)	160 mg/l
Soil	0,045 mg/kg

Reaction mass of tris(2-chloropropyl) phosphate and tris(2-chloro-1-methylethyl) phosphate and Phosphoric acid, bis(2-chloro-1-methylethyl) 2-chloropropyl ester and Phosphoric acid, 2-chloro-1-methylethyl bis(2-chloropropyl) ester	
Freshwater	0,32 mg/l
Freshwater (intermittent releases)	0,51 mg/l
Marine water	0,032 mg/l
Freshwater sediment	11,5 mg/kg
Marine sediment	1,15 mg/kg
Secondary poisoning	11,6 mg/kg
Micro-organisms in sewage treatment plants (STP)	19,1 mg/l
Soil	0,34 mg/kg

8.2. Exposure controls



Appropriate engineering controls

If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

Protective and hygiene measures

Always close containers tightly after the removal of product.
When using do not eat, drink, smoke, sniff.
Wash hands before breaks and after work.

Eye/face protection

Wear safety glasses; chemical goggles (if splashing is possible).

Hand protection

In case of prolonged or frequently repeated skin contact: Wear suitable gloves.
Suitable material:
Butyl rubber. (0,5 mm)
Breakthrough time >480 min
penetration time (maximum wearing period): >160 min
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
Check leak tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well.

Skin protection

Protective clothing.
Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.
Respiratory protection necessary at:
exceeding exposure limit values
Insufficient ventilation.
Suitable respiratory protective equipment: Protective respiration apparatus not using surrounding air (breathing apparatus) (DIN EN 133).
Use only respiratory protection equipment with CE-symbol including four digit test number.

Environmental exposure controls

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Aerosol
Colour:	not determined
Odour:	characteristic
pH-Value:	not determined

Changes in the physical state

Melting point:	not determined
Initial boiling point and boiling range:	not determined
Sublimation point:	not determined
Softening point:	not determined
Flash point:	not determined
Sustaining combustion:	Sustaining combustion

Explosive properties

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

Lower explosion limits:	not determined
Upper explosion limits:	not determined

Oxidizing properties

none

Vapour pressure:	not determined
Vapour pressure:	not determined
Density (at 20 °C):	0,95 g/cm³
Water solubility:	insoluble

Solubility in other solvents

not determined

Viscosity / dynamic:	not determined
Viscosity / kinematic:	not determined
Flow time:	not determined
Vapour density:	not determined
Evaporation rate:	not determined
Solvent separation test:	not determined
Solvent content:	not determined

9.2. Other information

Solid content:	not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No information available.

10.4. Conditions to avoid

Keep away from heat.
Ignition hazard.
Heating causes rise in pressure with risk of bursting.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

In use, may form flammable/explosive vapour-air mixture. Can be released in case of fire: Carbon dioxide (CO2). Carbon monoxide Phosphorus oxides

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicocinetics, metabolism and distribution

No information available.

Acute toxicity

Harmful if inhaled.

ATEmix calculated

ATE (inhalation vapour) 11,00 mg/l; ATE (inhalation aerosol) 1,500 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
115-10-6	dimethyl ether				
	inhalation (4 h) gas	LC50 164000 ppm	Rat	ECHA Dossier	
9016-87-9	Polymeric methylenediphenyl diisocyanate (MDI)				
	inhalation vapour	ATE 11 mg/l			
	inhalation aerosol	ATE 1,5 mg/l			
	Reaction mass of tris(2-chloropropyl) phosphate and tris(2-chloro-1-methylethyl) phosphate and Phosphoric acid, bis(2-chloro-1-methylethyl) 2-chloropropyl ester and Phosphoric acid, 2-chloro-1-methylethyl bis(2-chloropropyl) ester				
	oral	LD50 632 mg/kg	Rat	Study report (1996)	other: This study was conducted accordin
	dermal	LD50 > 1,29 mg/kg	Rat	Study report (1973)	Method: other: undiluted TS was applied
	inhalation (4 h) aerosol	LC50 >7 mg/l	Rat	ECHA Dossier	
74-98-6	propane				
	inhalation gas	LC50 800000 (15 min) ppm	Rat	ECHA Dossier	
75-28-5	isobutane				
	inhalation gas	LC50 520400 (120 min) ppm	Mouse.	ECHA Dossier	

Irritation and corrosivity

Causes skin irritation.
Causes serious eye irritation.

Sensitising effects

Contains isocyanates. May produce an allergic reaction.May cause an allergic skin reaction. (Polymeric methylenediphenyl diisocyanate (MDI))
May cause allergy or asthma symptoms or breathing difficulties if inhaled . (Polymeric methylenediphenyl diisocyanate (MDI))

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of causing cancer. (Polymeric methylenediphenyl diisocyanate (MDI))
Germ cell mutagenicity: 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

May cause respiratory irritation. (Polymeric methylenediphenyl diisocyanate (MDI))

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (Polymeric methylenediphenyl diisocyanate (MDI))

Aspiration hazard

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

Specific effects in experiment on an animal

No information available.

SECTION 12: Ecological information

12.1. Toxicity

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
115-10-6	dimethyl ether						
	Acute fish toxicity	LC50	>4100 mg/l	96 h	Poecilia reticulata	ECHA Dossier	
	Acute crustacea toxicity	EC50	>4400 mg/l	48 h	Daphnia magna	ECHA Dossier	
	Reaction mass of tris(2-chloropropyl) phosphate and tris(2-chloro-1-methylethyl) phosphate and Phosphoric acid, bis(2-chloro-1-methylethyl) 2-chloropropyl ester and Phosphoric acid, 2-chloro-1-methylethyl bis(2-chloropropyl) ester						
	Acute fish toxicity	LC50	56,2 mg/l	96 h	Danio rerio	Study report (1991)	other: UBA-Verfahrensvorschlag: "Letale
	Acute algae toxicity	ErC50	82 mg/l	72 h	Pseudokirchneriella subcapitata	Study report (2004)	OECD Guideline 201
	Acute crustacea toxicity	EC50	131 mg/l	48 h	Daphnia magna	Study report (1985)	Static bioassay: method not specified
	Crustacea toxicity	NOEC	32 mg/l	21 d	Daphnia magna	Study report (1995)	other: OECD Test Guideline 202
	Acute bacteria toxicity	(784 mg/l)		3 h	Activated sludge	Study report (1990)	ISO 8192

12.2. Persistence and degradability

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
115-10-6	dimethyl ether			
	OECD 301D / EEC 92/69 annex V, C.4-E	5%	28	ECHA Dossier
	Not easily bio-degradable (according to OECD-criteria).			
	Reaction mass of tris(2-chloropropyl) phosphate and tris(2-chloro-1-methylethyl) phosphate and Phosphoric acid, bis(2-chloro-1-methylethyl) 2-chloropropyl ester and Phosphoric acid, 2-chloro-1-methylethyl bis(2-chloropropyl) ester			
	EU Method C.6	13%	28	ECHA Dossier
	Product is not easily biodegradable.			

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
115-10-6	dimethyl ether	0,07
	Reaction mass of tris(2-chloropropyl) phosphate and tris(2-chloro-1-methylethyl) phosphate and Phosphoric acid, bis(2-chloro-1-methylethyl) 2-chloropropyl ester and Phosphoric acid, 2-chloro-1-methylethyl bis(2-chloropropyl) ester	2,68
74-98-6	propane	2,36
75-28-5	isobutane	2,8

BCF

CAS No	Chemical name	BCF	Species	Source
	Reaction mass of tris(2-chloropropyl) phosphate and tris(2-chloro-1-methylethyl) phosphate and Phosphoric acid, bis(2-chloro-1-methylethyl) 2-chloropropyl ester and Phosphoric acid, 2-chloro-1-methylethyl bis(2-chloropropyl) ester	0,8 - 2,8	Cyprinus carpio	Japan Chemical Indus

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Dispose of waste according to applicable legislation.
Non-contaminated packages may be recycled.
According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.
Control report for waste code/ waste marking according to EAKV:

Waste disposal number of waste from residues/unused products

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing hazardous substances; hazardous waste

Waste disposal number of used product

080501 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes not otherwise specified in 08; waste isocyanates; hazardous waste

Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS
14.3. Transport hazard class(es):	2
14.4. Packing group:	-
Hazard label:	2.1

Classification code:	5F
Special Provisions:	190 327 344 625
Limited quantity:	1 L
Excepted quantity:	E0
Transport category:	2
Tunnel restriction code:	D

Inland waterways transport (ADN)

14.1. UN number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS
14.3. Transport hazard class(es):	2
14.4. Packing group:	-
Hazard label:	2.1

Classification code:	5F
Special Provisions:	190 327 344 625
Limited quantity:	1 L
Excepted quantity:	E0

Marine transport (IMDG)

14.1. UN number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS
14.3. Transport hazard class(es):	2.1
14.4. Packing group:	-
Hazard label:	2.1

Marine pollutant:	NO
Special Provisions:	63, 190, 277, 327, 344, 381,959
Limited quantity:	1000 mL
Excepted quantity:	E0
EmS:	F-D, S-U

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS, flammable

14.3. Transport hazard class(es): 2.1

14.4. Packing group: -

Hazard label: 2.1

Special Provisions:	A145 A167 A802
Limited quantity Passenger:	30 kg G
Passenger LQ:	Y203
Excepted quantity:	E0
IATA-packing instructions - Passenger:	203
IATA-max. quantity - Passenger:	75 kg
IATA-packing instructions - Cargo:	203
IATA-max. quantity - Cargo:	150 kg

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

refer to chapter 6-8

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 28: isobutane

2010/75/EU (VOC):	not determined
2004/42/EC (VOC):	not determined
Information according to 2012/18/EU (SEVESO III):	P3a FLAMMABLE AEROSOLS

Additional information

Aerosol directive (75/324/EEC)

REACH 1907/2006 Appendix XVII, No (mixture): 3, 56

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

National regulatory information

Employment restrictions:	Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).
Water contaminating class (D):	1 - slightly water contaminating

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

Reaction mass of tris(2-chloropropyl) phosphate and tris(2-chloro-1-methylethyl) phosphate and Phosphoric acid, bis(2-chloro-1-methylethyl) 2-chloropropyl ester and Phosphoric acid, 2-chloro-1-methylethyl bis(2-chloropropyl) ester

propane

isobutane

SECTION 16: Other information

Changes

Rev. 1.0; Initial release 10.08.2018

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route
CAS Chemical Abstracts Service
DNEL: Derived No Effect Level
IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
LOAEL: Lowest observed adverse effect level
LOAEC: Lowest observed adverse effect concentration
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
NOAEL: No observed adverse effect level
NOAEC: No observed adverse effect level
NTP: National Toxicology Program
N/A: not applicable
OSHA: Occupational Safety and Health Administration
PNEC: predicted no effect concentration
PBT: Persistent bioaccumulative toxic
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
SARA: Superfund Amendments and Reauthorization Act
SVHC: substance of very high concern
TRGS Technische Regeln fuerGefahrstoffe
TSCA: Toxic Substances Control Act
VOC: Volatile Organic Compounds
VwVwS: Verwaltungsvorschrift wassergefaehrdender Stoffe
WGK: Wassergefaehrdungsklasse

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Aerosol 1; H222-H229	On basis of test data
Acute Tox. 4; H332	Bridging principle "Aerosols"
Skin Irrit. 2; H315	Bridging principle "Aerosols"
Eye Irrit. 2; H319	Bridging principle "Aerosols"
Resp. Sens. 1; H334	Bridging principle "Aerosols"
Skin Sens. 1; H317	Bridging principle "Aerosols"
Carc. 2; H351	Calculation method
STOT SE 3; H335	Bridging principle "Aerosols"
STOT RE 2; H373	Bridging principle "Aerosols"

Relevant H and EUH statements (number and full text)

H220 Extremely flammable gas.
H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H280 Contains gas under pressure; may explode if heated.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.

H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled .
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
EUH204	Contains isocyanates. May produce an allergic reaction.

Further Information

Classification according EC regulation 1272/2008 (CLP): - Classification procedure:
Health hazards: Calculation method.
Environmental hazards: Calculation method.
Physical hazards: On basis of test data and / or calculated and / or estimated.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)