



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008  
This SDS is for generic information purposes and does not reflect required country specific information for OEL

**BOSTIK FP404 FIRE RETARDANT PU GUNFOAM**  
Supersedes Date: 26-Oct-2021

Revision date 26-Oct-2021  
Revision Number 5

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

### 1.1. Product identifier

**Product Name** BOSTIK FP404 FIRE RETARDANT PU GUNFOAM  
**Pure substance/mixture** Mixture

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

**Recommended use** Aerosol.  
**Uses advised against** Consumer use.

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

**Company Name**  
Bostik Romania SRL  
51, Rasaritului Street (DN7)  
070000 Buftea  
Ilfov  
Romania  
Phone: +40 372 833 300  
Fax: +40 372 833 301  
www.bostik.com

**E-mail address** SDS.box-EU@bostik.com

### 1.4. Emergency telephone number

**Emergency Telephone** No information available

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

<b>Acute toxicity - Inhalation (Dusts/Mists)</b>	Category 4 - (H332)
<b>Skin corrosion/irritation</b>	Category 2 - (H315)
<b>Serious eye damage/eye irritation</b>	Category 2 - (H319)
<b>Respiratory sensitisation</b>	Category 1 - (H334)
<b>Skin sensitisation</b>	Category 1 - (H317)
<b>Carcinogenicity</b>	Category 2 - (H351)
<b>Specific target organ toxicity — single exposure</b>	Category 3 - (H335)
<b>Specific target organ toxicity — repeated exposure</b>	Category 2 - (H373)
<b>Aerosols</b>	Category 1 - (H222, H229)

### 2.2. Label elements

Contains Isocyanic acid, polymethylenepolyphenylene ester

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**Signal word**  
Danger

## Hazard statements

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.  
H222 - Extremely flammable aerosol.  
H229 - Pressurised container: May burst if heated.

## EU Specific Hazard Statements

EUH204 - Contains isocyanates. May produce an allergic reaction

## Precautionary Statements - EU (§28, 1272/2008)

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  
P260 - Do not breathe mist/vapours/spray  
P271 - Use only outdoors or in a well-ventilated area  
P280 - Wear protective gloves and eye/face protection  
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor  
P405 - Store locked up  
P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F  
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

## Special provisions concerning the labelling of certain mixtures

Persons already sensitised to diisocyanates may develop allergic reactions when using this product. 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. In case of insufficient ventilation and/or through use, the formation of a explosive/highly flammable mixture is possible. During transportation by car the cans should stand upright in the cargo space. As from 24 August 2023 adequate training is required before industrial or professional use.

## Additional information

This product requires tactile warnings if supplied to the general public.

## 2.3. Other hazards

In case of insufficient ventilation and/or through use, the formation of a explosive/highly flammable mixture is possible. During transportation by car the cans should stand upright in the cargo space. The mentioned hazards are valid for the non-reacted content of the can or of the fresh foam. When foaming the propellants are highly flammable. May be harmful if swallowed.

## PBT & vPvB

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This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not applicable

### 3.2 Mixtures

Chemical name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	REACH registration number
Isocyanic acid, polymethylenepolyphenylene ester	618-498-9	9016-87-9	40 - <80	STOT SE 3 (H335) STOT RE 2 (H373) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Resp. Sens. 1 (H334) Skin Sens. 1 (H317) Carc. 2 (H351) Acute Tox. 4 (H332)	STOT SE 3 :: C>=5% Skin Irrit. 2 :: C>=5% Eye Irrit. 2 :: C>=5% Resp. Sens. 1 :: C>=0.1%	[7]
Phosphorous oxychloride, reaction products with propylene oxide	807-935-0	1244733-77-4	10 - <20	Acute Tox. 4 (H302)		01-2119486772-26-XXXX
Dimethyl ether	204-065-8	115-10-6	5 - <10	Flam. Gas 1 (H220) Press. Gas		01-2119472128-37-XXXX
Halogenated polyetherpolyol	-	68441-62-3	1 - <2.5	Eye Irrit. 2 (H319) Acute Tox. 4 (H302)		[7]

NOTE [7] - No registration number is given for this substance because it is a polymer exempted from registration according to the provisions of Article 2(9) of REACH. All monomers or other substances within the polymer are registered or exempt from registration

### Full text of H- and EUH-phrases: see section 16

Note: ^ indicates not classified, however, the substance is listed in section 3 as it has an OEL

This product does not contain candidate substances of very high concern at a concentration  $\geq 0.1\%$  (Regulation (EC) No. 1907/2006 (REACH), Article 59)

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**General advice** Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get

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	medical advice/attention.
<b>Inhalation</b>	Remove to fresh air. May cause allergic respiratory reaction. If breathing has stopped, give artificial respiration. Get medical attention immediately. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Get immediate medical advice/attention.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.
<b>Skin contact</b>	May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a doctor. Wash off immediately with soap and plenty of water for at least 15 minutes. Do not use solvents or thinners to dissolve the material.
<b>Ingestion</b>	May produce an allergic reaction. Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.
<b>Self-protection of the first aider</b>	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. See section 8 for more information. Avoid breathing vapours or mists.

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

<b>Symptoms</b>	May cause allergy or asthma symptoms or breathing difficulties if inhaled. Coughing and/or wheezing. Itching. Rashes. Hives. May cause redness and tearing of the eyes. Burning sensation. Difficulty in breathing.
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## 4.3. Indication of any immediate medical attention and special treatment needed

<b>Note to doctors</b>	May cause sensitisation in susceptible persons. Treat symptomatically.
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## **SECTION 5: Firefighting measures**

### 5.1. Extinguishing media

<b>Suitable Extinguishing Media</b>	Dry chemical. Carbon dioxide (CO <sub>2</sub> ). Water spray.
<b>Unsuitable extinguishing media</b>	Full water jet. DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.

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

<b>Specific hazards arising from the chemical</b>	Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Cylinders may rupture under extreme heat. Damaged cylinders should be handled only by specialists. Containers may explode when heated. Product is or contains a sensitiser. May cause sensitisation by inhalation and skin contact. May cause sensitisation by skin contact.
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<b>Hazardous combustion products</b>	Carbon oxides. Carbon monoxide. Carbon dioxide (CO <sub>2</sub> ). Nitrogen oxides (NO <sub>x</sub> ). Hydrogen cyanide. Isocyanates.
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### 5.3. Advice for firefighters

<b>Special protective equipment and precautions for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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## SECTION 6: Accidental release measures

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

<b>Personal precautions</b>	Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Take precautionary measures against static discharges. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid breathing vapours or mists.
<b>Other information</b>	Ventilate the area. Refer to protective measures listed in Sections 7 and 8.
<b>For emergency responders</b>	Use personal protection recommended in Section 8.

### 6.2. Environmental precautions

<b>Environmental precautions</b>	Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.
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### 6.3. Methods and material for containment and cleaning up

<b>Methods for containment</b>	Keep out of drains, sewers, ditches and waterways. Stop leak if you can do it without risk. A vapour suppressing foam may be used to reduce vapours. Dyke far ahead of spill to collect run-off water. Flood with water to complete polymerization and scrape off floor.
<b>Methods for cleaning up</b>	Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers.
<b>Prevention of secondary hazards</b>	Clean contaminated objects and areas thoroughly observing environmental regulations.

### 6.4. Reference to other sections

<b>Reference to other sections</b>	See section 8 for more information. See section 13 for more information.
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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

<b>Advice on safe handling</b>	Use personal protection equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use spark-proof tools and explosion-proof equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Keep in an area equipped with sprinklers. Do not puncture or incinerate cans. Contents under pressure. In case of rupture. Avoid breathing vapours or mists. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Provide extract ventilation to points where emissions occur. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Take off contaminated clothing and wash it before reuse.
<b>General hygiene considerations</b>	Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Remove and wash contaminated clothing and gloves, including the inside, before re-use.

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

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## Storage Conditions

Protect from sunlight. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labelled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store in a cool, dry area away from potential sources of heat, open flames, sunlight or other chemicals. Store locked up. Keep out of the reach of children. Keep/store only in original container. Store in a dry place. Store in a closed container.

## 7.3. Specific end use(s)

### Specific use(s)

Aerosol.

**Risk Management Methods (RMM)** The information required is contained in this Safety Data Sheet.

### Other information

Observe technical data sheet.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure Limits

**Only European Community Occupational Exposure Limits will be shown in this document. Please refer to regional SDS for further information.**

Chemical name	European Union
Dimethyl ether 115-10-6	TWA: 1000 ppm TWA: 1920 mg/m <sup>3</sup>

**Derived No Effect Level (DNEL)** No information available

Derived No Effect Level (DNEL)			
Phosphorous oxychloride, reaction products with propylene oxide (1244733-77-4)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Long term Systemic health effects	Inhalation	8.2 mg/m <sup>3</sup>	
worker Short term Systemic health effects	Inhalation	22.6 mg/m <sup>3</sup>	
worker Long term Systemic health effects	Dermal	2.91 mg/kg bw/d	

Dimethyl ether (115-10-6)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Long term Systemic health effects	Inhalation	1894 mg/m <sup>3</sup>	

Halogenated polyetherpolyol (68441-62-3)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Long term Systemic health effects	Inhalation	6 mg/m <sup>3</sup>	
worker	Dermal	0.87 mg/kg bw/d	

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Long term Systemic health effects			
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<b>Derived No Effect Level (DNEL)</b>			
<b>Phosphorous oxychloride, reaction products with propylene oxide (1244733-77-4)</b>			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer Long term Systemic health effects	Inhalation	1.45 mg/m <sup>3</sup>	
Consumer Short term Systemic health effects	Inhalation	5.6 mg/m <sup>3</sup>	
Consumer Long term Systemic health effects	Dermal	1.04 mg/kg bw/d	
Consumer Long term Systemic health effects	Oral	0.52 mg/kg bw/d	
Consumer Short term Systemic health effects	Oral	2 mg/kg bw/d	

<b>Dimethyl ether (115-10-6)</b>			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer Long term Systemic health effects	Inhalation	471 mg/m <sup>3</sup>	

<b>Halogenated polyetherpolyol (68441-62-3)</b>			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer Long term Systemic health effects	Inhalation	1.5 mg/m <sup>3</sup>	
Consumer Long term Systemic health effects	Dermal	0.435 mg/kg bw/d	

**Predicted No Effect Concentration (PNEC)** No information available.

<b>Predicted No Effect Concentration (PNEC)</b>	
<b>Phosphorous oxychloride, reaction products with propylene oxide (1244733-77-4)</b>	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	0.32 mg/l
Marine water	0.032 mg/l
Sewage treatment plant	19.1 mg/l
Freshwater sediment	11.5 mg/kg dry weight
Marine sediment	1.15 mg/kg dry weight
Soil	0.34 mg/kg dry weight

<b>Dimethyl ether (115-10-6)</b>	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	0.155 mg/l
Marine water	0.016 mg/l
Microorganisms in sewage treatment	160 mg/l
Freshwater sediment	0.681 mg/kg dry weight

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Soil	0.45 mg/kg dry weight
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## 8.2. Exposure controls

<b>Engineering controls</b>	Ensure adequate ventilation, especially in confined areas. Vapours/aerosols must be exhausted directly at the point of origin.
<b>Personal protective equipment</b>	
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles). Eye protection must conform to standard EN 166.
<b>Hand protection</b>	Wear suitable gloves. Glove thickness > 0.7mm. Butyl rubber. Nitrile rubber. The breakthrough time for the mentioned glove material is in general greater than 480 min. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Gloves must conform to standard EN 374
<b>Skin and body protection</b>	Wear appropriate personal protective clothing to prevent skin contact.
<b>Respiratory protection</b>	Ensure adequate respiratory protection during spray applications. In case of insufficient ventilation, wear suitable respiratory equipment.
<b>Recommended filter type:</b>	Organic gases and vapours filter conforming to EN 14387. Wear a respirator conforming to EN 140 with Type A filter or better.
<b>Environmental exposure controls</b>	No information available.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

<b>Physical state</b>	Liquid	
<b>Appearance</b>	Foam	
<b>Colour</b>	No information available	
<b>Odour</b>	Characteristic	
<b>Odour threshold</b>	No information available	
<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>
<b>pH</b>	No data available	Not applicable Insoluble in water
<b>pH (as aqueous solution)</b>	No data available	
<b>Melting point / freezing point</b>	No data available	
<b>Initial boiling point and boiling range</b>	Not applicable, Aerosol	Not applicable, Aerosol
<b>Flash point</b>	Not applicable, Aerosol	Not applicable, Aerosol
<b>Evaporation rate</b>	No data available	
<b>Flammability</b>	No data available	
<b>Flammability Limit in Air</b>		
<b>Upper flammability or explosive limits</b>	18.6	
<b>Lower flammability or explosive limits</b>	1.7	
<b>Vapour pressure</b>	600	kPa @ 20 °C
<b>Relative vapour density</b>	No data available	
<b>Relative density</b>	No data available	
<b>Water solubility</b>	Immiscible in water	
<b>Solubility(ies)</b>	No data available	
<b>Partition coefficient</b>	No data available	
<b>Autoignition temperature</b>	No data available	
<b>Decomposition temperature</b>	No data available	
<b>Kinematic viscosity</b>	No data available	
<b>Dynamic viscosity</b>	No data available	
<b>Explosive properties</b>	No data available	
<b>Oxidising properties</b>	No data available	



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## 9.2. Other information

Solid content (%)	No information available	
VOC Content (%)	160.5 g/L	European directive n°2010/75/UE
Density	1.049 g/cm <sup>3</sup>	

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity No information available.

### 10.2. Chemical stability

Stability Stable under normal conditions.

### Explosion data

Sensitivity to mechanical impact	None.
Sensitivity to static discharge	Yes.

### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Heating causes rise in pressure with risk of bursting.

### 10.4. Conditions to avoid

Conditions to avoid Product cures with moisture. Heat, flames and sparks. Excessive heat. Protect from moisture. Keep away from open flames, hot surfaces and sources of ignition. Extremes of temperature and direct sunlight.

### 10.5. Incompatible materials

Incompatible materials Strong acids. Strong bases. Strong oxidising agents. Water. Alcohols. Amines. Incompatible with oxidising agents.

### 10.6. Hazardous decomposition products

Hazardous decomposition products None under normal use conditions. Stable under recommended storage conditions.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Information on likely routes of exposure

#### Product Information

Inhalation	Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Specific test data for the substance or mixture is not available. May cause sensitisation in susceptible persons. (based on components). May cause irritation of respiratory tract. Harmful by inhalation.
Eye contact	Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.
Skin contact	Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). May cause sensitisation by skin contact. Causes skin irritation.

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## Ingestion

Specific test data for the substance or mixture is not available. May cause additional effects as listed under "Inhalation". Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. May be harmful if swallowed.

## Symptoms related to the physical, chemical and toxicological characteristics

### Symptoms

Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing. Coughing and/ or wheezing. Itching. Rashes. Hives. Redness. May cause redness and tearing of the eyes.

## Numerical measures of toxicity

### Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 3,291.70 mg/kg  
ATEmix (inhalation-dust/mist) 3.27 mg/l

## Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Isocyanic acid, polymethylenepolyphenylene ester 9016-87-9	LD50 > 10000 mg/kg (Rattus)	LD 50 > 9400 mg/kg (Oryctolagus cuniculus)	=1.5 mg/L (Rattus) 4 h
Phosphorous oxychloride, reaction products with propylene oxide 1244733-77-4	LD50 > 500 mg/kg (males); LD50 = 632 mg/kg (females)(Rattus)	LD50 >2000 mg/Kg (Rattus) (OECD 402)	LD50 >7 mg/L (4h)(Rattus) (OECD 403)
Dimethyl ether 115-10-6			=164000 ppm (Rattus) 4 h
Halogenated polyetherpolyol 68441-62-3	LD50 = 1337 mg/Kg (Rattus) (OECD 401)		

## Delayed and immediate effects as well as chronic effects from short and long-term exposure

### Skin corrosion/irritation

Classification based on data available for ingredients. Irritating to skin.

### Serious eye damage/eye irritation

Classification based on data available for ingredients. Causes serious eye irritation.

### Respiratory or skin sensitisation

May cause sensitisation by inhalation. May cause sensitisation by skin contact.

### Germ cell mutagenicity

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

### Carcinogenicity

Contains a known or suspected carcinogen. Classification based on data available for ingredients. Suspected of causing cancer.

### Reproductive toxicity

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

### STOT - single exposure

May cause respiratory irritation.

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**STOT - repeated exposure** May cause damage to organs through prolonged or repeated exposure.

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

## 11.2. Information on other hazards

### 11.2.1. Endocrine disrupting properties

**Endocrine disrupting properties** No information available.

### 11.2.2. Other information

**Other adverse effects** No information available.

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea	M-Factor	M-Factor (long-term)
Isocyanic acid, polymethylenepolyphenylene ester 9016-87-9	ErC50 (72h) >1640 mg/L Algae (scenedesmus subspicatus) (OECD 201)	CL50 (96h) >1000 mg/L (Danio rerio)	-	EC50 (24H) >1000 mg/L Daphnia magna		
Phosphorous oxychloride, reaction products with propylene oxide 1244733-77-4	ErC50 (72h) = 82 mg/L (Pseudokirchneriella subcapitata) OECD 201	LC50 (96h) = 56.2 mg/L (Brachydanio rerio) Static	-	LC50 (48h) = 131 mg/L Daphnia magna		
Dimethyl ether 115-10-6	-	LC50: >4.1g/L (96h, Poecilia reticulata)	-	> 4400 mg/L (Daphnia) (NEN 6501)		
Halogenated polyetherpolyol 68441-62-3	-	LC50: =560mg/L (96h, Poecilia reticulata)	-	-		

### 12.2. Persistence and degradability

**Persistence and degradability** No information available.

#### Component Information

##### Isocyanic acid, polymethylenepolyphenylene ester (9016-87-9)

Method	Exposure time	Value	Results
OECD Test No. 302C: Inherent Biodegradability: Modified MITI Test (II)	28 days	0% biodegradation	Not readily biodegradable

##### Halogenated polyetherpolyol (68441-62-3)

Method	Exposure time	Value	Results
OECD Test No. 301D: Ready	28 days	16%	Not readily biodegradable

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Biodegradability: Closed Bottle Test (TG 301 D)			
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## 12.3. Bioaccumulative potential

**Bioaccumulation** There is no data for this product.

### Component Information

Chemical name	Partition coefficient	Bioconcentration factor (BCF)
Isocyanic acid, polymethylenepolyphenylene ester 9016-87-9	-	< 14
Phosphorous oxychloride, reaction products with propylene oxide 1244733-77-4	2.68	-
Dimethyl ether 115-10-6	-0.18	-
Halogenated polyetherpolyol 68441-62-3	3.3	-

## 12.4. Mobility in soil

**Mobility in soil** No information available.

## 12.5. Results of PBT and vPvB assessment

**PBT and vPvB assessment** This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT).

Chemical name	PBT and vPvB assessment
Phosphorous oxychloride, reaction products with propylene oxide 1244733-77-4	The substance is not PBT / vPvB
Dimethyl ether 115-10-6	The substance is not PBT / vPvB
Halogenated polyetherpolyol 68441-62-3	The substance is not PBT / vPvB

## 12.6. Other adverse effects

**Other adverse effects** No information available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Waste from residues/unused products** Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal.

**Waste codes / waste designations according to EWC / AVV** 16 05 05 gases in pressure containers other than those mentioned in 16 05 04. Waste codes should be assigned by the user based on the application for which the product was used.

**European Waste Catalogue** 08 05 01\* waste isocyanates  
16 05 04\* gases in pressure containers (including halons) containing dangerous

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substances  
17 06 04 insulation materials other than those mentioned in 17 06 01 and 17 06 03

**Other information** Waste codes should be assigned by the user based on the application for which the product was used.

## SECTION 14: Transport information

**Note:** The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments made in non-bulk packages (see regulatory definition). The information shown here, may not always agree with the bill of lading shipping description for the material.

### Land transport (ADR/RID)

14.1 UN number or ID number	UN1950
14.2 Proper Shipping Name	Aerosols
14.3 Transport hazard class(es)	2
Labels	2.1
14.4 Packing group	Not regulated
Description	UN1950, Aerosols, 2, (D)
14.5 Environmental hazards	Not applicable
14.6 Special Provisions	190, 327, 344, 625
Classification code	5F
Tunnel restriction code	(D)
Limited quantity (LQ)	1 L

### IMDG

14.1 UN number or ID number	UN1950
14.2 Proper Shipping Name	Aerosols
14.3 Transport hazard class(es)	2.1
14.4 Packing group	Not regulated
Description	UN1950, Aerosols, 2.1, (0°C c.c.)
14.5 Marine pollutant	NP
14.6 Special Provisions	63, 190, 277, 327, 344, 381, 959
Limited Quantity (LQ)	See SP277
EmS-No	F-D, S-U
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code	Not applicable

### Air transport (ICAO-TI / IATA-DGR)

14.1 UN number or ID number	UN1950
14.2 Proper Shipping Name	Aerosols, flammable
14.3 Transport hazard class(es)	2.1
14.4 Packing group	Not regulated
Description	UN1950, Aerosols, flammable, 2.1
14.5 Environmental hazards	Not applicable
14.6 Special Provisions	A145, A167, A802
Limited quantity (LQ)	30 kg G
ERG Code	10L

## Section 15: REGULATORY INFORMATION

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

#### European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Check whether measures in accordance with Directive 94/33/EC for the protection of young people at work must be taken.

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Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

## **Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)**

### **SVHC: Substances of Very High Concern for Authorisation:**

This product does not contain candidate substances of very high concern at a concentration  $\geq 0.1\%$  (Regulation (EC) No. 1907/2006 (REACH), Article 59)

### **EU-REACH (1907/2006) - Annex XVII - Substances subject to Restriction**

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

Chemical name	CAS No	Restricted substance per REACH Annex XVII
Isocyanic acid, polymethylenepolyphenylene ester	9016-87-9	56 74.
Diisocyanates	--	74

#### **56**

If product supplied to the general public with substance  $\geq 0.1\%$ , then gloves must be provided with the product

**74** If product supplied to the industrial or professional users with total monomeric diisocyanates  $\geq 0.1\%$ , then its packaging must mention "As from 24 August 2023 adequate training is required before industrial or professional use"

### **Substance subject to authorisation per REACH Annex XIV**

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

### **Dangerous substance category per Seveso Directive (2012/18/EU)**

P3a - FLAMMABLE AEROSOLS

P3b - FLAMMABLE AEROSOLS

### **Ozone-depleting substances (ODS) regulation (EC) 1005/2009**

Not applicable

### **Persistent Organic Pollutants**

Not applicable

## **National regulations**

### **France**

#### **Occupational Illnesses (R-463-3, France)**

Chemical name	French RG number
Isocyanic acid, polymethylenepolyphenylene ester 9016-87-9	RG 62
Dimethyl ether 115-10-6	RG 84

### **Germany**

#### **Ordinance on Industrial Safety and Health - Germany - BetrSichV**

Flammable liquid (R10), EEC: refer to Annex III No. 1 (fire and explosion hazards) and § 7 paragraph 3

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**Water hazard class (WGK)** slightly hazardous to water (WGK 1)

## Netherlands

**List of Carcinogenic, mutagenic and reproductive toxin substances in accordance with Inspectorate SZW (Netherlands)**  
Not Listed

## Denmark

**Registration number(s) (P-no.)** No information available

## Norway

**Registration number(s) (PRN-no.)** No information available

## 15.2. Chemical safety assessment

Chemical Safety Assessments have been carried out by the Reach registrants for substances registered at >10 tpa. No Chemical Safety Assessment has been carried out for this mixture.

## **SECTION 16: Other information**

### Key or legend to abbreviations and acronyms used in the safety data sheet

#### Full text of H-Statements referred to under section 3

H220 - Extremely flammable gas  
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

#### **Legend**

TWA	TWA (time-weighted average)
STEL	STEL (Short Term Exposure Limit)
Ceiling	Ceiling Limit Value
*	Skin designation
SVHC	Substance(s) of Very High Concern
PBT	Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
vPvB	Very Persistent and very Bioaccumulative (vPvB) Chemicals
STOT RE	Specific target organ toxicity - Repeated exposure
STOT SE	Specific target organ toxicity - Single exposure
EWC	European Waste Catalogue

#### **Key literature references and sources for data**

No information available

**Prepared By** Product Safety & Regulatory Affairs

**Revision date** 26-Oct-2021

#### Indication of changes

**Revision note** SDS sections updated, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 15.

**Training Advice** AS FROM 24 AUGUST 2023 ADEQUATE TRAINING IS REQUIRED BEFORE INDUSTRIAL OR PROFESSIONAL USE

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**Further information** No information available

**This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

## **Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**