



according to Regulation (EC) No 1907/2006

**FLAMRO BSB / FLAMRO BSB - K with preservatives**

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**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
9016-87-9	Diphenylmethanediisocyanate, isomers and homologues			10 - < 15 %
	618-498-9			
	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			
1244733-77-4	Phosphorous oxychloride, reaction products with propylene oxide			1 - < 5 %
	911-815-4			
	Acute Tox. 4; H302			
68187-76-8	Castor oil, sulfated, sodium salt			1 - < 5 %
	269-123-7		01-2119943732-36	
	Eye Irrit. 2; H319			
26530-20-1	octhilinone (ISO); 2-octyl-2H-isothiazol-3-one			< 0,05 %
	247-761-7	613-112-00-5		
	Acute Tox. 3, Acute Tox. 3, Acute Tox. 4, Skin Corr. 1B, Skin Sens. 1, Aquatic Acute 1, Aquatic Chronic 1; H331 H311 H302 H314 H317 H400 H410			

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

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

Remove contaminated soaked clothing immediately.  
In the event of persistent symptoms receive medical treatment.

**After inhalation**

Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion.  
Refer for medical treatment.

**After contact with skin**

In case of contact with skin wash off with soap and water.  
Consult a doctor if skin irritation persists.

**After contact with eyes**

Rinse thoroughly with plenty of water, also under the eyelids.  
In the event of persistent symptoms receive medical treatment.

**After ingestion**

Do not induce vomiting.  
In the event of persistent symptoms receive medical treatment.

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

Health injuries are not known or expected under normal use.

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

Treat symptoms.

**SECTION 5: Firefighting measures****5.1. Extinguishing media**

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**Suitable extinguishing media**

Product does not burn, fire-extinguishing activities according to surrounding.

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

Fire protection material.

Health injuries are not known or expected under normal use.

**5.3. Advice for firefighters**

Use breathing apparatus with independent air supply.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Remove persons to safety.

Avoid contact with the skin and the eyes.

**6.2. Environmental precautions**

Do not discharge into the drains/surface waters/ground water.

**6.3. Methods and material for containment and cleaning up**

Take up mechanically and collect in suitable container for disposal.

**6.4. Reference to other sections**

Information for disposal see section 13.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Keep container tightly closed.

When using do not eat, drink or smoke.

"ZH 1/34 ""Data Sheet: Polyurethane manufacture / Isocyanate (M 044)""

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed.

Use only in well-ventilated areas.

**Further information on storage conditions**

Keep away from food, drink and animal feeding stuffs.

**7.3. Specific end use(s)**

2-component polyurethane foam with flame retardants

building material forming an insulating layer / intumescent material

Structural fire protection, molded article

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****8.2. Exposure controls**

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**Appropriate engineering controls**

Ensure adequate ventilation, especially in confined areas. Release of dust may result from mechanical processing. Avoid any dust formation during processing. Any dust build-up that cannot be avoided should be removed regularly. Do not breathe dust. Do not stir up dust. Avoid dust deposits.

**Protective and hygiene measures**

Wash hands before breaks and immediately after handling the product.  
When using do not eat, drink or smoke.  
Avoid contact with skin, eyes and clothing.

**Eye/face protection**

Tightly fitting goggles (EN 166).

**Hand protection**

Chemical-resistant gloves (EN 374). Safety gloves for the site (EN420, Cat. 1 or 2).  
Follow the recommendations of the glove manufacturer for breakthrough properties especially for workplace conditions involving mechanical stress and contact duration.

**Skin protection**

Light protective clothing  
Long sleeved clothing (DIN EN ISO 6530)

**Respiratory protection**

Breathing apparatus (particle filter P2) only if dust is formed.

**SECTION 9: Physical and chemical properties**

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

Physical state:	molded article
Colour:	Light gray to dark gray, blue, turquoise
Odour:	Odourless

**Test method**

pH-Value: Not relevant

**Changes in the physical state**

Melting point:	Not relevant
Initial boiling point and boiling range:	Not relevant
Sublimation point:	Not relevant
Softening point:	Not relevant
Flash point:	Not relevant
Sustaining combustion:	Not sustaining combustion

**Flammability**

Solid: Not relevant

**Explosive properties**

None. Fire protection material.

Lower explosion limits:	Not relevant
Upper explosion limits:	Not relevant
Ignition temperature:	Not relevant

**Auto-ignition temperature**

Solid:	Not relevant
Decomposition temperature:	Not relevant



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**Oxidizing properties**

None. Fire protection material.

Vapour pressure:

Not relevant

Water solubility:

Not relevant

**Solubility in other solvents**

Not relevant

Partition coefficient:

Not relevant

Viscosity / dynamic:

Not relevant

Viscosity / kinematic:

Not relevant

Flow time:

Not relevant

**9.2. Other information**

FLAMRO BSB:

Density: 250 kg/m<sup>3</sup> +/- 35 kg/m<sup>3</sup>

Weight loss due to heating: 60,0% - 70,0% (tested at 500°C for 30 minutes)

Foam factor: 1,4 - 3,5

FLAMRO BSB-K:

Density: 350 kg/m<sup>3</sup> +/- 35 kg/m<sup>3</sup>

Weight loss due to heating: 57,5% - 67,5% (tested at 500°C for 30 minutes)

Foam factor: 2,3 - 4,0

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Under influence of temperature intumescent building material.

**10.2. Chemical stability**

Chemically stable.

**10.3. Possibility of hazardous reactions**

No hazardous reactions known.

**10.4. Conditions to avoid**

No decomposition if stored and applied as directed.

**10.5. Incompatible materials**

No data available

**10.6. Hazardous decomposition products**

Under normal atmospheric conditions no hazardous decomposition products known.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Toxicokinetics, metabolism and distribution**

Health injuries are not known or expected under normal use.

**Acute toxicity**

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



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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
9016-87-9	Diphenylmethanediisocyanate, isomers and homologues				
	oral	LD50 > 2000 mg/kg	Rat		
	inhalation vapour	ATE 11 mg/l			
	inhalation aerosol	ATE 1,5 mg/l			
1244733-77-4	Phosphorous oxychloride, reaction products with propylene oxide				
	oral	LD50 500 - 2000 mg/kg	Rat (male)		
	dermal	LD50 > 2000 mg/kg	Rat (male)	OECD 402 / EU B.3	
	inhalation (4 h) aerosol	LC50 > 7 mg/l	Rat	OECD 403 / 433	
26530-20-1	octhilinone (ISO); 2-octyl-2H-isothiazol-3-one				
	oral	ATE 500 mg/kg			
	dermal	ATE 300 mg/kg			
	inhalation vapour	ATE 3 mg/l			
	inhalation aerosol	ATE 0,5 mg/l			

**Irritation and corrosivity**

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

Depending on the production parameters, uncovered surfaces of polyurethane moulds produced using this raw material may contain traces of substances (e. g. starting and reaction products, catalysts, release agents) with hazardous effects (e. g. harmful, irritating, corrosive, sensitising). Avoid skin contact with traces of these substances.

**Sensitising effects**

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

**Carcinogenic/mutagenic/toxic effects for reproduction**

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

**STOT-single exposure**

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

**STOT-repeated exposure**

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

**Aspiration hazard**

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

**Practical experience****Other observations**

Release of dust may result from mechanical processing. Avoid any dust formation during processing. Any dust build-up that cannot be avoided should be removed regularly. Do not breathe dust.

**SECTION 12: Ecological information****12.1. Toxicity**

No data available



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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
9016-87-9	Diphenylmethanediisocyanate, isomers and homologues					
	Acute fish toxicity	LC50 > 1000 mg/l	96 h	Zebra fish		
1244733-77-4	Phosphorous oxychloride, reaction products with propylene oxide					
	Acute fish toxicity	LC50 51 mg/l	96 h	Pimephales promelas		
	Acute crustacea toxicity	EC50 131 mg/l	48 h	Daphnia magna	OECD 202	

**12.2. Persistence and degradability**

No data available

**12.3. Bioaccumulative potential**

No data available

**12.4. Mobility in soil**

No data available

**12.5. Results of PBT and vPvB assessment**

No data available

**12.6. Other adverse effects**

No data available

**Further information**

Do not flush into surface water or sanitary sewer system.

Ecological injuries are not known or expected under normal use.

**SECTION 13: Disposal considerations**
**13.1. Waste treatment methods****Advice on disposal**

Do not discharge into the drains/surface waters/ground water. The waste code number must be agreed with the disposer / manufacturer / competent authority. Waste disposal according to local regulations.

**Waste disposal number of waste from residues/unused products**

200128 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS; separately collected fractions (except 15 01); paint, inks, adhesives and resins other than those mentioned in 20 01 27

**Contaminated packaging**

Empty containers should be taken for local recycling, recovery or waste disposal.

**SECTION 14: Transport information**
**Land transport (ADR/RID)****14.1. UN number:**

No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):**

No dangerous good in sense of this transport regulation.

**14.4. Packing group:**

No dangerous good in sense of this transport regulation.

**Inland waterways transport (ADN)****14.1. UN number:**

No dangerous good in sense of this transport regulation.



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**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.

**14.4. Packing group:** No dangerous good in sense of this transport regulation.

#### Marine transport (IMDG)

**14.1. UN number:** No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.

**14.4. Packing group:** No dangerous good in sense of this transport regulation.

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

**14.1. UN number:** No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.

**14.4. Packing group:** No dangerous good in sense of this transport regulation.

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

#### 14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

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

No dangerous good in sense of this transport regulation.

### SECTION 15: Regulatory information

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

##### EU regulatory information

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

##### Additional information

As an article the product does not need to be labelled in accordance with EC-regulations or respective national laws.

According to the Regulation (EC) No. 1907/2006 Article 31 for this product (article) it is not legally requested to prepare and provide a safety data sheet.

##### National regulatory information

Water contaminating class (D): 1 - slightly water contaminating

#### 15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

### SECTION 16: Other information

#### Changes

Update 2019

#### Abbreviations and acronyms

EC Directives: acts of the European Union, part of the secondary Union law

CAS-Nr.: Chemical Abstracts Service

TRGS 510: Technical Rules for Hazardous Substances "storage of hazardous materials in portable tanks"

TRGS 900: Technical Rules for Hazardous Substances "workplace exposure limits"





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EN 374: Standard for protective gloves (gloves for protection against chemicals and micro-organisms)  
EN 166: European safety standards for eye and face protection (requirements)  
STOT: Specific target organ toxicity  
AVV: European Waste Catalogue  
VOC: Volatile organic compound  
GHS: Globally Harmonized System of Classification, Labelling and Packaging of Chemicals  
ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route  
(Agreement concerning the international carriage of Dangerous goods by Road)  
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail  
IMDG-Code: International Maritime Code for Dangerous Goods  
ADN: sea and inland waterway transport  
ICAO: International Civil Aviation Organization  
MARPOL 73/78: International Convention for the Prevention of Pollution From Ships  
IBC-Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
n.a. - not applicable

**Relevant H and EUH statements (number and full text)**

H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
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.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

**Further Information**

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge.

The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

(n.a. = not applicable; n.d. = not determined)

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

