



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

1.1. Product identifier

FLAMRO BSB / FLAMRO BSB - K with preservatives

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

Use of the substance/mixture

2-component polyurethane foam with flame retardants
building material forming an insulating layer / intumescent material
molded article, Structural fire protection

1.3. Details of the supplier of the safety data sheet

Company name: FLAMRO Brandschutz-Systeme GmbH

Street: Am Sportplatz 2

Place: D-56291 Leiningen

Telephone: +49 (0) 6746 9410-0

Telefax: +49 (0) 6746 9410-10

e-mail: info@flamro.de

Responsible Department:

Responsible for the safety data sheet: sds@gbk-ingelheim.de

1.4. Emergency telephone number:

+49 (0) 6132 / 84463 (GBK GmbH)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture according to 1272/2008/EC

This mixture is not classified as hazardous according to Regulation (EC) No. 1272/2008.

2.2. Label elements

Additional advice on labelling

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

2.3. Other hazards

Note: This product is an "article" and is not an object that is required to issue Safety Data Sheets (SDS) by regulations concerning chemical substances. This SDS voluntarily offers helpful information for your safe handling and environmental care.

The classification has been omitted, because the danger does not exist in its present form.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Complex mixture. 2-component polyurethane foam with flame retardants, molded article, Preservative.



Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
9016-87-9	Diphenylmethanediisocyanate, isomers and homologues			10 - < 15 %
	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	Reaction mass of propylene oxide and phosphorus oxychloride			1 - < 5 %
	911-815-4		01-2119486772-26	
	Acute Tox. 4; H302			
68187-76-8	Castor oil, sulfated, sodium salt			1 - < 5 %
	269-123-7		01-2119943732-36	
	Eye Irrit. 2A; 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 phrases: 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

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



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 (EN 368).

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

Changes in the physical state

Explosive properties	None. Fire protection material.
Oxidizing properties	None. Fire protection material.

9.2. Other information

FLAMRO BSB:

Density: 250 kg/m³ +/- 35 kg/m³

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/m³ +/- 35 kg/m³

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.



CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
9016-87-9	Diphenylmethanediisocyanate, isomers and homologues				
	oral	LD50 mg/kg	> 2000 mg/kg	Rat	
	inhalative (4 h) vapour	LC50	490 mg/l	Rat	
	inhalative aerosol	ATE	1,5 mg/l		
1244733-77-4	Reaction mass of propylene oxide and phosphorus oxychloride				
	oral	LD50 mg/kg	500 - 2000	Rat (male)	
	dermal	LD50	> 2000 mg/kg	Rat (male)	OECD 402 / EU B.3
	inhalative (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		
	inhalative vapour	ATE	3 mg/l		
	inhalative 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.

STOT-single exposure

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

Severe effects after repeated or prolonged exposure

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.

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.

Further information

Classification in compliance with the assessment procedure specified in the EC guidelines 1999/45/EC.

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

No data available.



CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h] [d]	Species	Source
9016-87-9	Diphenylmethanediisocyanate, isomers and homologues					
	Acute fish toxicity	LC50	> 1000 mg/l	96 h	Zebra fish	
1244733-77-4	Reaction mass of propylene oxide and phosphorus oxychloride					
	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); Marine transport (IMDG); Air transport (ICAO); Inland waterways transport (ADN):****14.1. UN number:**

Not applicable. No hazardous material as defined by the transport regulations.

14.2. UN proper shipping name:

Not applicable. No hazardous material as defined by the transport regulations.

14.3. Transport hazard class(es):

Not applicable. No hazardous material as defined by the transport regulations.

14.4. Packing group:

Not applicable. No hazardous material as defined by the transport regulations.

14.5. Environmental hazards

Not applicable. No hazardous material as defined by the transport regulations.

14.6. Special precautions for user

Not applicable. No hazardous material as defined by the transport regulations.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable. No hazardous material as defined by the transport regulations.

SECTION 15: Regulatory information



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

EU regulatory information

Additional information

As an article the product does not need to be labelled in accordance with EC-directives 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

Abbreviations and acronyms

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route

RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses

ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure

IMDG = International Maritime Code for Dangerous Goods

IATA/ICAO = International Air Transport Association / International Civil Aviation Organization

MARPOL = 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

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

REACH = Registration, Evaluation, Authorization and Restriction of Chemicals

CAS = Chemical Abstract Service

EN = European norm

ISO = International Organization for Standardization

DIN = Deutsche Industrie Norm

PBT = Persistent Bioaccumulative and Toxic

vPvB = Very Persistent and very Bio-accumulative

LD = Lethal dose

LC = Lethal concentration

EC = Effect concentration

IC = Median immobilisation concentration or median inhibitory concentration

Relevant H- and EUH-phrases (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.

Safety Data Sheet according to Regulation (EC) No 1907/2006

FLAMRO Brandschutz-Systeme GmbH

FLAMRO BSB / FLAMRO BSB - K with preservatives

Revision date: 06.07.2015

Revision No: 1,0

Product code: 00150-0017



(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.)