



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

### 1.1. Product identifier

FLAMRO BMA, FLAMRO BMS, FLAMRO BMK

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

#### Use of the substance/mixture

FLAMRO BMA: brush-on and spray-on ablative coating

FLAMRO BMS: fire protection filler material

FLAMRO BMK: fire protection filler material filled in cartridges

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

**1.4. Emergency telephone number:** +49 (0) 6132 / 84463 (GBK GmbH)

#### Further Information

License number: Z-19.11-1299

License number: Z-19.11-1300

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

This mixture is not classified as hazardous according to Directive 1999/45/EC.

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

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

### 2.2. Label elements

#### Special labelling of certain mixtures

EUH210 Safety data sheet available on request.

### 2.3. Other hazards

Do not rub eyes - contains inorganic fillers, which irritate the eyes mechanically like other inert materials.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Chemical characterization

Complex mixture based on: aqueous plastic dispersion having an inorganic filler and flame retardants.

#### Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
911-815-4	Reaction mass of propylene oxide and phosphorus oxychloride	
1244733-77-4	Xn - Harmful R22	
	Acute Tox. 4; H302	
01-2119486772-26		

Full text of R, H and EUH phrases: see section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures



**FLAMRO BMA, FLAMRO BMS, FLAMRO BMK**

---

**General information**

Remove contaminated clothes and wash before re-use.

**After inhalation**

Take affected person into fresh air. Consult a physician.

**After contact with skin**

In case of contact with skin wash off immediately with plenty of water.

**After contact with eyes**

Do not rub eyes - contains inorganic fillers, which irritate the eyes mechanically like other inert materials.

Rinse thoroughly with plenty of water, also under the eyelids.

If eye irritation persists, consult a specialist.

**After ingestion**

Never give anything by mouth to an unconscious person. Do not induce vomiting.

Rinse out mouth and give plenty of water to drink.

Consult a physician.

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

Not known.

**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 itself does not burn. Use fire fighting measures that suit the environment and products stored.

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

None

**5.3. Advice for firefighters**

In case of fire, wear suitable respiratory equipment with positive air supply.

**Additional information**

Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

---

**SECTION 6: Accidental release measures**

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

Avoid contact with eyes, skin or mucous membrane.

**6.2. Environmental precautions**

Do not discharge large amounts into the drains or bodies of water.

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

Pick up mechanically, avoiding dust, and provide disposal in suitable recipients.

**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**

Provide appropriate exhaust ventilation at machinery and at places where dust can be generated.

No special measures necessary if used correctly.

**Advice on protection against fire and explosion**

No special precautions required.

**Further information on handling**

Take the usual precautions when handling with chemicals.

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

**Requirements for storage rooms and vessels**

Keep container tightly closed in a dry, cool and well-ventilated place.

---



**Advice on storage compatibility**

No special storage conditions required.

**Further information on storage conditions**

Keep from freezing. Aqueous composition.

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

FLAMRO BMA: brush-on and spray-on ablative coating

FLAMRO BMS: fire protection filler material

FLAMRO BMK: fire protection filler material filled in cartridges

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
1317-65-3	Calcium carbonate, respirable	-	4		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
9004-34-6	Cellulose (pure), respirable	-	4		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
13463-67-7	Titanium dioxide, respirable	-	4		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

**8.2. Exposure controls**

**Appropriate engineering controls**

Provide appropriate exhaust ventilation at machinery and at places where dust can be generated.

**Protective and hygiene measures**

Take the usual precautions when handling with chemicals.

Wash hands before breaks and at the end of workday.

When using do not eat, drink or smoke.

**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**

Protective clothing

**Respiratory protection**

Not required under normal use.

**SECTION 9: Physical and chemical properties**

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

Physical state: see below

Colour: White

Odour: Odourless

pH-Value (at 20 °C): approx. 8

Density (at 20 °C): 1,55 +/- 0,07 g/cm<sup>3</sup> DIN EN ISO 2811-1

Water solubility: Completely miscible

Explosive properties: The product is not explosive. Aqueous composition.

Oxidizing properties: normally flammable, Construction material class: DIN 4102-B2

**9.2. Other information**

Physical state: FLAMRO BMA: brush-on and spray-on

FLAMRO BMS: fire protection filler material



**FLAMRO BMA, FLAMRO BMS, FLAMRO BMK**

FLAMRO BMK: fire protection filler material filled in cartridg

Non-volatile components: 66,0 - 76,0 % (DIN EN ISO 3251, 3h, 105°C)

Mass loss by heating: 31,0 %  $\leq$  MVdE  $\leq$  41,0% (400°C, 0,5h)

Critical oxygen index (LOI): 65,0 % < LOI < 68,0 % (ca. 1,5 mm thick sample)

Flexibility:  $\geq$  6 mm Mandrel diameter (Bend test, ca. 1,5 mm thick sample)

FLAMRO BMA: Viscosity: approx. 200 dPas (Haake Viscotester VT-02, 20 - 22°C)

FLAMRO BMS, FLAMRO BMK: Viscosity: 800dPas, 20 - 22°C (Putties)

---

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No data available.

**10.2. Chemical stability**

Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

None under normal processing.

**10.4. Conditions to avoid**

To avoid thermal decomposition, do not overheat.

Keep from freezing.

**10.5. Incompatible materials**

Strong oxidizing agents.. Strong acids.. Strong bases.

**10.6. Hazardous decomposition products**

No decomposition if stored and applied as directed.

---

**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.

**Irritation and corrosivity**

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

Contact with eyes may cause irritation. Do not rub eyes - contains inorganic fillers, which irritate the eyes mechanically like other inert materials.

**Sensitising effects**

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

Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons.

**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.

**Further information**

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

---

**SECTION 12: Ecological information**

**12.1. Toxicity**

Ecological data are not available.

**12.2. Persistence and degradability**

Not determined

**12.3. Bioaccumulative potential**



**FLAMRO BMA, FLAMRO BMS, FLAMRO BMK**

Not determined

**12.4. Mobility in soil**

Negligible

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

Not determined

**12.6. Other adverse effects**

Low hazard to waters.

**Further information**

Do not flush into surface water or sanitary sewer system.

---

**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**

080410 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants other than those mentioned in 08 04 09

**Contaminated packaging**

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse. Packaging that cannot be cleaned should be disposed of like the product.

---

**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**

1999/13/EC (VOC): 0 %

**National regulatory information**

Employment restrictions: Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing.

**Additional information**

Switzerland-Customs tariff number:  
3206.1900 - Pigment Titanium dioxide (approx. 6%)  
3907.2090 - Polyether (approx. 0,1%)  
3901.3000 - Ethylene / vinylacetate copolymer (approx. 23,5%)



## **15.2. Chemical safety assessment**

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

## **SECTION 16: Other information**

### **Abbreviations and acronyms**

Changes in chapter: 2, 8, 9, 13, 15

### **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

LD = Lethal dose

LC = Lethal concentration

EC = Effect concentration

IC = Median immobilisation concentration or median inhibitory concentration

### **Relevant R-phrases (Number and full text)**

22 Harmful if swallowed.

### **Relevant H- and EUH-phrases (Number and full text)**

H302 Harmful if swallowed.

EUH210 Safety data sheet available on request.

### **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)