

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**KÖSTER LF-BM A**

Revision date: 12.05.2018

Product code: CT160a

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

KÖSTER LF-BM A

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

The product is intended for professional use.

**Uses advised against**

No identified use(s).

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

Company name:	KOESTER BAUCHEMIE AG	
Street:	Dieselstrasse 1 - 10	
Place:	D-26607 Aurich	
Telephone:	+49-4941-9709-0	Telefax: +49-4941-9709-40
e-mail (Contact person):	produktsicherheit@koester.eu	
Internet:	www.koester.eu	
Responsible Department:	Forschung & Entwicklung	

**1.4. Emergency telephone number:** +49-551-19240 (24 h, Giftinformationszentrum Nord)**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Respiratory or skin sensitisation: Skin Sens. 1

Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

Causes skin irritation.

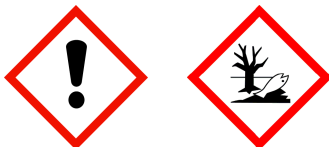
Causes serious eye irritation.

May cause an allergic skin reaction.

Toxic to aquatic life with long lasting effects.

**2.2. Label elements****Regulation (EC) No. 1272/2008****Hazard components for labelling**epoxy resin (number average molecular weight  $\leq$  700), reaction product: bisphenol-A-(epichlorhydrin)

1,6-Hexanediol diglycidyl ether

**Signal word:** Warning**Pictograms:****Hazard statements**

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.

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#### Precautionary statements

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362	Take off contaminated clothing.
P363	Wash contaminated clothing before reuse.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.

#### Special labelling of certain mixtures

EUH205 Contains epoxy constituents. May produce an allergic reaction.

#### Additional advice on labelling

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

#### 2.3. Other hazards

No information available.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Chemical characterization

Contains epoxy constituents with an average molecular weight of  $\leq 700$ .

##### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
25068-38-6	epoxy resin (number average molecular weight $\leq 700$ ), reaction product: bisphenol-A-(epichlorhydrin)			< 80 %
	500-033-5	603-074-00-8		
	Eye Irrit. 2, Skin Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H319 H315 H317 H411			
16096-31-4	1,6-Hexanediol diglycidyl ether			< 20 %
	240-260-4		01-2119463471-41	
	Skin Irrit. 2, Eye Irrit. 2A, Skin Sens. 1, Aquatic Chronic 3; H315 H319 H317 H412			
9003-36-5	Bisphenol-F-Epoxidharz (MW < 700)			< 15 %
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H319 H317 H411			

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

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information

First aider: Pay attention to self-protection! Move victim out of danger zone. In all cases of doubt, or when symptoms persist, seek medical advice.

##### After inhalation

Provide fresh air. Move victim to fresh air. Put victim at rest and keep warm. In case of irregular breathing or respiratory arrest provide artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator. If unconscious place in recovery position and seek medical advice.

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**After contact with skin**

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Call a doctor if you feel unwell.

**After contact with eyes**

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician in any case!

**After ingestion**

Rinse mouth immediately and drink plenty of water. Remove casualty to fresh air and keep warm and at rest. Rinse mouth thoroughly with water. Let water be drunk in little sips (dilution effect). Caution if victim vomits: Risk of aspiration! If unconscious place in recovery position and seek medical advice.

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

Allergic reactions.

Causes tears.

Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).

**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**

Co-ordinate fire-fighting measures to the fire surroundings. Suitable extinguishing media: Water spray jet, Foam, Carbon dioxide (CO<sub>2</sub>), Dry extinguishing powder.

**Unsuitable extinguishing media**

High power water jet.

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

Special exposure hazards arising from the substance itself, combustion products, resulting gases: Carbon dioxide (CO<sub>2</sub>). Carbon monoxide

**5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing. Full protective suit.

**Additional information**

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Use water spray jet to protect personnel and to cool endangered containers.

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

Remove persons to safety. Wear chemical resistant suit. Do not breathe gas/vapour.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains. 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.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

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

When using do not eat, drink, smoke, sniff. Avoid release to the environment. Keep only in the original container in a cool, well-ventilated place. Do not breathe gas/fumes/vapour/spray. People who suffer from skin sensitization problems, asthma, allergies, chronic or recurring respiratory illnesses should not be deployed in any process using this preparation. Avoid release to the environment.

**Advice on protection against fire and explosion**

Usual measures for fire prevention.

**Further information on handling**

When using do not eat, drink, smoke, sniff. Avoid release to the environment. Keep only in the original container in a cool, well-ventilated place. Do not breathe gas/fumes/vapour/spray. Avoid release to the environment. Keep container tightly closed.

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

Keep container tightly closed. Keep only in the original container in a cool, well-ventilated place. Keep away from food, drink and animal feedingstuffs. Protect from sunlight.

**Advice on storage compatibility**

Keep away from food, drink and animal feedingstuffs.

**Further information on storage conditions**

Protect against: Frost.

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

No information available.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Additional advice on limit values**

To date, no national critical limit values exist.

**8.2. Exposure controls****Appropriate engineering controls**

If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

**Protective and hygiene measures**

Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink.

**Eye/face protection**

Tightly sealed safety glasses.

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. Suitable material: NBR (Nitrile rubber). PVC (Polyvinyl chloride). Butyl rubber. Breakthrough times and swelling properties of the material must be taken into consideration.

**Skin protection**

When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn. Only wear fitting, comfortable and clean protective clothing.

**Respiratory protection**

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be

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worn. Use only respiratory protection equipment with CE-symbol including four digit test number.

#### Environmental exposure controls

Discharge into the environment must be avoided.

### SECTION 9: Physical and chemical properties

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

Physical state: liquid  
 Colour: transparent  
 Odour: characteristic

#### Changes in the physical state

Melting point: not determined  
 Initial boiling point and boiling range: > 200 °C  
 Flash point: > 160 °C

#### Flammability

Solid: not applicable  
 Gas: not applicable

#### Explosive properties

not explosive.

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

#### Auto-ignition temperature

Solid: not applicable  
 Gas: not applicable

Decomposition temperature: not determined

#### Oxidizing properties

Not oxidising.

Vapour pressure: 0,0001 hPa  
 (at 23 °C)

Density: 1,1 g/cm<sup>3</sup>

Partition coefficient: not determined

Viscosity / dynamic: < 1000 mPa·s  
 (at 23 °C)

Vapour density: not determined

Evaporation rate: not determined

#### 9.2. Other information

No information available.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

#### 10.2. Chemical stability

Danger of polymerisation. The product is chemically stable under recommended conditions of storage, use and temperature.

#### 10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions. Reacts with : Alkalis (alkalis).  
 Alcohols.

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**10.4. Conditions to avoid**

Keep away from heat. Protect against direct sunlight.

**10.5. Incompatible materials**

Oxidizing agents.

**10.6. Hazardous decomposition products**

The product is stable under storage at normal ambient temperatures. No known hazardous decomposition products.

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

No information available.

**Acute toxicity**

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

No information available.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
9003-36-5	Bisphenol-F-Epoxidharz (MW < 700)				
	oral	LD50 > 23800 mg/kg	Rat		
	dermal	LD50 > 2000 mg/kg	Rabbit		

**Irritation and corrosivity**

Causes skin irritation.

Causes serious eye irritation.

**Sensitising effects**

May cause an allergic skin reaction. (epoxy resin (number average molecular weight ≤ 700), reaction product: bisphenol-A-(epichlorhydrin); 1,6-Hexanediol diglycidyl ether; Bisphenol-F-Epoxidharz (MW &lt; 700))

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

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

No information available.

**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.

**Specific effects in experiment on an animal**

No information available.

**Additional information on tests**

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP]. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

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

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
9003-36-5	Bisphenol-F-Epoxidharz (MW < 700)					
	Acute fish toxicity	LC50 mg/l	1,5 - 7,7	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50	220 mg/l	96 h		
	Acute crustacea toxicity	EC50 mg/l	1,1 - 3,6	48 h	Daphnia magna	

**12.2. Persistence and degradability**

Product is not easily biodegradable.

**12.3. Bioaccumulative potential**

On the basis of existing data about the elimination/degradation and bioaccumulation potential longer term damage to the environment cannot be ruled out.

**12.4. Mobility in soil**

No information available.

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

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

**12.6. Other adverse effects**

No information available.

**Further information**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

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

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

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

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

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other hazardous substances; hazardous waste

**Contaminated packaging**

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

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

UN3082

**14.2. UN proper shipping name:**ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Epoxy resin (molecular weight <= 700 g/mol) )**14.3. Transport hazard class(es):**

9

**14.4. Packing group:**

III

Hazard label:

9



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Classification code: M6  
 Special Provisions: 274 335 375 601  
 Limited quantity: 5 L  
 Excepted quantity: E1  
 Transport category: 3  
 Hazard No: 90  
 Tunnel restriction code: E

**Inland waterways transport (ADN)**

**14.1. UN number:** UN 3082  
**14.2. UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
 (Epoxy resin (molecular weight <= 700 g/mol))  
**14.3. Transport hazard class(es):** 9  
**14.4. Packing group:** III  
 Hazard label: 9



Classification code: M6  
 Special Provisions: 274 335 375 601  
 Limited quantity: 5 L  
 Excepted quantity: E1

**Marine transport (IMDG)**

**14.1. UN number:** UN 3082  
**14.2. UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
 (Epoxy resin (molecular weight <= 700 g/mol))  
**14.3. Transport hazard class(es):** 9  
**14.4. Packing group:** III  
 Hazard label: 9



Marine pollutant: 1  
 Special Provisions: 274, 335, 969  
 Limited quantity: 5 L  
 Excepted quantity: E1  
 EmS: F-A, S-F

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

**14.1. UN number:** UN 3082  
**14.2. UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
 (Epoxy resin (molecular weight <= 700 g/mol))  
**14.3. Transport hazard class(es):** 9  
**14.4. Packing group:** III  
 Hazard label: 9



Special Provisions: A97 A158 A197  
 Limited quantity Passenger: 30 kg G  
 Passenger LQ: Y964



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Excepted quantity:	E1	
IATA-packing instructions - Passenger:		964
IATA-max. quantity - Passenger:		450 L
IATA-packing instructions - Cargo:		964
IATA-max. quantity - Cargo:		450 L

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: yes



Danger releasing substance: SECTION 12: Ecological information

**14.6. Special precautions for user**

SECTION 6: Accidental release measures  
 SECTION 7: Handling and storage  
 SECTION 8: Exposure controls/personal protection

**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**

2004/42/EC (VOC): 29 % (319 g/l)

**National regulatory information**

Water contaminating class (D): 3 - highly water contaminating

**Additional information**

1-4

**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 sur le transport des marchandises dangereuses par Route  
 (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service  
 LC50: Lethal concentration, 50%  
 LD50: Lethal dose, 50%

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

H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H319 Causes serious eye irritation.  
 H411 Toxic to aquatic life with long lasting effects.  
 H412 Harmful to aquatic life with long lasting effects.  
 EUH205 Contains epoxy constituents. May produce an allergic reaction.

**Further Information**

The information is based on present level of our knowledge. It does not, however, give assurances of product

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properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. 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.

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