

Safety Data Sheet
according to Regulation (EG) No. 1907/2006 (REACH)
according to Regulation (EU) No 453/2010

Article No.: F45.0003A Flexonal LR24H
Print date: 03.03.2020 Revision date: 03.03.2020
Version: 1-1 Issue date: 03.03.2020

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

1.1 Product identifiers

Article No. (manufacturer/supplier): F45.0003A
Identification of the substance or mixture: Flexonal EP LR24H

1.2 Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.

Application of the substance / the mixture:

Epoxy binder

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Bachmann Kunststoff Technologien GmbH

Rudolf-Diesel-Str. 2

D-63322 Rödermark

Telefon: +49 6074 94394

Telefax: +49 6074 98544

Informing Department:

Information Contact:

Mr. Julien

E-mail (competent person):

service@bktgermany.com

1.4 Emergency Telephone Number:

Telephone:

+49 6074 94394

Only available during office hours.

Poison Control Center Mainz - 24 h –

Emergency Call:

+49 6131 19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Skin Irrit. 2

H315 Causes skin irritation.

Eye Irrit. 2

H319 Causes serious eye irritation.

Skin Sens. 1

H317 May cause an allergic skin reaction.

Aquatic Chronic 2

H411 Toxic to aquatic life with long lasting effects.

2.2 Label Elements

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

The product is classified and labelled according to the CLP regulation.

Hazard pictograms



Signal word

Warning

GHS07 GHS09

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.
 P273 Avoid release to the environment.
 P280 Wear protective gloves / eye protection / face protection.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Contains: bis[4-(2,3-epoxypropoxy)phenyl]propane
 Bisphenol F- Epoxyresin
 Hexanedioldiglycidyl ether

Additional information: EUH205 Contains epoxy constituents. May produce an allergic reaction.

2.3 Other hazards

This substance/mixture does not contain components classified as either persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation:

Mixtures
 Epoxy resin formulation with a bisphenol-A liquid resin base and bisphenol-F liquid resin

Description

Dangerous components:

Chemical Description	CAS-No. EG-No./List Registration-no. Indexno.	Classification (Regulation (EG) No. 1272/2008)	Concentration (%)
bis-[4-(2,3-epoxypropoxy)phenyl]propane	1675-54-3 216-823-5 01-2119456619-26-xxxx 603-073-00-2	Aquatic Chronic 2, H411; Skin Irrit. 2, H315 ; Eye Irrit. 2, H319 ; Skin Sens. 1, H317	50-100%
Bisphenol-F-Epoxyresin	701-263-0 01-2119454932-40-xxxx	Aquatic Chronic 2, H411; Skin Irrit. 2; H315; Skin sens. 1, H317	10-25%
Hexanedioldiglycidyl ether	16096-31-4 240-260-4 01-2119463471-41-xxxx	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Chronic3, H412	10-25%

Additional information: For the wording of the listed hazard phrases refer to section 16.

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SECTION 4: First aid measures

4.1 Description of first aid measures General information

Instantly remove any clothing soiled by the product.

After inhalation

Take affected persons into the open air and position comfortably
Seek medical treatment in case of complaints.

After skin contact

Instantly wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.

After eye contact

Rinse opened eye for several minutes under running water.
Then consult doctor.

After swallowing

Seek immediate medical advice.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

Information for doctor

No particular measures are known - treat according to symptoms.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents:

Carbon dioxide (CO₂)
extinguishing powder or
water jet.
Fight larger fires with water
jet or alcohol-resistant
foam.

For safety reasons unsuitable extinguishing agents:

Water with a full water jet

5.2 Special hazards arising from the substance or mixture

Special hazards arising from the substance or mixture:

Formation of toxic gases is possible during heating or in case of fire.

5.3 Advice for firefighters

Protective equipment:

Put on breathing apparatus.

Additional information:

Dispose of fire debris and contaminated firefighting water in accordance with official regulations.

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SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures**
Personal precautions: See protective measures under points 7 and 8.
Wear protective clothing.
- 6.2 Environmental precautions**
Environmental precautions: Do not allow product to reach sewage system or water bodies.
Do not allow to enter the ground/soil.
- 6.3 Methods and material for containment and cleaning up**
Cleaning procedure: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated materials as waste according to item 13.
Ensure adequate ventilation.
- 6.4 Reference to other sections**
Clean the accident area carefully.

SECTION 7: Handling and storage

- 7.1 Precautions for safety handling**
Notes on safe handling: The usual precautionary measures for handling chemicals must be observed..
Ensure good ventilation/exhaustion at the workplace.
- Notes on fire and explosion protection: No special measures required.
- 7.2 Conditions for safety storage, including any incompatibilities Storage**
Requirements to be met by storerooms and containers: Store only in the original container.
Keep containers securely closed and dry, store frost-free.
Provide floor trough without outlet.
- Information on storage in one common storage facility: Store away from foodstuffs.
- Further information about storage conditions: Keep container tightly sealed..
- 7.3 Specific end use(s)**
Specific end use(s): No further relevant information available.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients	CAS-No.	Value type (type of exposure)	Parameters to be monitored	Basis
bis-[4-(2,3-epoxypropoxy)phenyl]propane	1675-54-3	Dermal Inhalative	8,33 mg/kg / bw/d 12,25 mg/m ³	DNEL
Bisphenol-F-Epoxyresin		Dermal Inhalative	104,15 mg/kg / bw/d 29,39 mg/m ³	DNEL
Hexanedioldiglycidyl ethe	16096-31-4	Dermal Inhalative	1,7 mg/kg / bw/d 2,9 mg/m ³	DNEL
bis-[4-(2,3-epoxypropoxy)phenyl]propane	1675-54-3		0,006 mg/l (Freshwater) 0,0006 mg/l (Seawater)	PNEC
Bisphenol-F-Epoxyresin			0,003 mg/l (Freshwater) 0,0003 mg/l (Seawater)	PNEC
Hexanedioldiglycidyl ether	16096-31-4		0,0115 mg/l (Freshwater) 0,00115 mg/l (Seawater)	PNEC

Additional information:

The lists that were valid during the compilation were used as basis.

8.2 Exposure controls

Technical protective measures

Effective suction
Efficient ventilation in all process areas.

Personel protective equipment

General protective and hygienic measures:

Keep away from foodstuffs, beverages and food.
Take off immediately all contaminated clothing.
Wash hands during breaks and at the end of the work.
Avoid contact with the eyes and skin.

Breathing equipment:
Recommended filter device for short term use:



Use breathing protection in case of insufficient ventilation.
Combination filter A-P2

Protection of hands:



Plastic gloves
Only use chemical-protective gloves with CE-labelling of category III.
To minimize the wetness in the glove due to perspiration changing of gloves during a shift is required.
Check the permeability prior to each a new use of the glove.
Preventive skin protection by use of skin-protecting agents is recommended.
Material of gloves
Nitrile rubber, NBR
Fluorocarbon rubber (Viton)
Recommended thickness of the material: ≥ 0.5 mm
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.
Penetration time of glove material

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The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Not suitable are gloves made of the following materials:

Strong gloves

Leather gloves

Eye protection:



Tightly sealed safety glasses

Body protection:

Protective work clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Fluid
Colour:	Yellowish
Odour:	Charakteristic
Melting point / freezing point:	Not determined
Initial boiling point and boiling range:	200 °C
Flash point:	150 °C
Self-inflammability:	Product is not selfigniting
Explosive properties:	Product is not explosive
Vapour pressure:	1 hPa
Density:	1,1 g/cm ³ (23°C) (ISO 2811-2)
Solubility in / Miscibility with Water:	Not miscible or difficult to mix
Viscosity dynamic:	875 mPa.s (25°C) (ISO 3219)

9.2 Other information

No further relevant information available.

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SECTION 10: Stability and reactivity

- 10.1 **Reactivity**
No further relevant information available.
- 10.2 **Chemical stability**
No decomposition if used according to specifications.
- 10.3 **Possibility of hazardous reactions**
Reacts with strong oxidizing agents, alkali, amines and acids
- 10.4 **Conditions of avoid**
No further relevant information available.
- 10.5 **Incompatible materials**
Substances to avoid: Strong oxidizing agents
- 10.6 **Hazardous decomposition products**
Hazardous decomposition products: none, if stored and handled correctly.
In the event of fire: toxic gases and vapours

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

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

LD/LC50 values that are relevant for classification:	
1675-54-3 bis-[4-(2,3-epoxypropoxy)phenyl]propane	
Oral	15,000 mg/kg (rat)
Dermal	23,000 mg/kg (rab)
Bisphenol-F-Epoxyresin	
Oral	>2,00 mg/kg (rat)
Dermal	>2,000 mg/kg (rat)
16096-31-4 Hexanedioldiglycidyl ether	
Oral	8,500 mg/kg (rat)
Dermal	>4,900 mg/kg (rab)

Primary irritant effect

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/irritation: Causes serious eye irritation.

Respiratory or skin sensitisation: May cause an allergic skin reaction.

CMR effects (carcinogenicity, mutagenicity and toxic for reproduction)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

Reproduction toxicity: 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.

SECTION 12: Ecological information

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12.1 Toxicity

Aquatic Toxicity:

1675-54-3 bis-[4-(2,3-epoxypropoxy)phenyl]propane	
Bakterientoxizität (Bacteria toxicity)	100 mg/l (Pseudomonas putida)
Daphnientoxizität (Daphnia toxicity)	1,8 mg/l (Daphnia magna (Wasserfloh)) (EC50(48h))
Algentoxizität (Algae toxicity)	11 mg/l (Scenedesmus capricornutum) (EC50(72h))
Fischtoxizität (Fish toxicity)	2 mg/l (Oncorhynchus mykiss (Regenbogenforelle)) (LC50(96h))
Bisphenol-F-Epoxyresin	
Daphnientoxizität (Daphnia toxicity)	2,55 mg/l (Daphnia magna (Wasserfloh)) (LC50(48h))
Algentoxizität (Algae toxicity)	1,8 mg/l (Scenedesmus capricornutum) (LC50(72))
Fischtoxizität (Fish toxicity)	2,254 mg/l (Leuciscus idus) (EC50(96h))
16096-31-4 1,6-Hexanedioldiglycidyl ether	
Daphnientoxizität (Daphnia toxicity)	67 mg/l (Daphnia magna (Wasserfloh)) (EC50(48h))
Algentoxizität (Algae toxicity)	23,1 mg/l (LC50(48))
Fischtoxizität (Fish toxicity)	30 mg/l (Oncorhynchus mykiss (Regenbogenforelle)) (LC50(96h))

12.2 Persistence and degradability

Biodegradability: No further relevant information available.
 Other information: The product is slightly biodegradable.

12.3 Bioaccumulative potential

Bioaccumulation: No further relevant information available.

12.4 Mobility in soil

Mobility in soil: No further relevant information available.
 Other information: bioaccumulation possible.
 Ecotoxicological effects: Not determined
 Remark: Toxic for fish.

Additional ecological information:

General notes: Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.
 Do not allow product to reach ground water, water bodies or sewage system.
 Danger to drinking water if even small quantities leak into soil.
 Also poisonous for fish and plankton in water bodies.
 Toxic for aquatic organisms.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable
 vPvB: Not applicable

12.6 Other adverse effects

No further relevant information available.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation:

For disposal, local regulations issued by the authorities must be observed. Dispose of liquid components at a suitable incineration plant. After curing, the product can be disposed of with household waste.

European waste catalogue	
08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 02 00	wastes from MFSU of other coatings (including ceramic materials)
08 02 99	wastes not otherwise specified

Uncleaned packagings:



Disposal must be made according to official regulations.

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SECTION 14 Transport information

14.1	UN-Number ADR/RID/ADN, IMG, IATA	UN3082
14.2	UN proper shipping name ADR/RID/ADN IMDG IATA	3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin)
14.3	Transport hazard class(es) ADR/RID/ADN  Class Label	9 (M6) Miscellaneous dangerous substances and articles. 9
	IMDG, IATA  Class Label	9 Miscellaneous dangerous substances and articles. 9
14.4	Packing group ADR/RID/ADN, IMDG, IATA	III
14.5	Environmental hazards: Marine pollutant Special marking (ADR/RID/ADN): Special marking (IATA):	Product contains environmentally hazardous substances: epoxy resin Yes Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree)
14.6	Special precautions for user (Kemler Number): EMS-Number: Stowage Category:	Warning: Miscellaneous dangerous substances and articles. 90 F-A, S-F A
14.7	Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable
Transport/ Additional information:		
ADR/RID/ADN		
Excepted quantities (EQ):	E1	
Limited quantities (LQ)	5L	
Excepted quantities (EQ)	Code: E1	
	Maximum net quantity per inner packaging : 30 ml	
	Maximum net quantity per outer packaging : 1000 ml	
Transport category		
3		
IMDG		
Limited quantities (LQ)	5L	
Excepted quantities (EQ)	Code : E1	
	Maximum net quantity per inner packaging : 30 ml	
	Maximum net quantity per outer packaging : 1000ml	
UN « Model Regulation » :	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESIN), 9, III	

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SECTION 15: Regulatory information

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

Directive 21012/18/EU
Named dangerous substances – ANNEX I None of the ingredients is listed.
Seveso category E2 Hazardous to the Aquatic Environment

Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t
Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
REGULATION (EC) No 1907/2006 ANNEX XVI Conditions of restriction: 3

National regulations:

VOC -EU (Decopaint-Directive 2004/42/EG)
0,0 g/l

Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out..

SECTION 16: Other information

Relevant Phrases

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.

Other information

Training information: Ensure adequate information, instruction and training for users.

To the best of our knowledge, the information in this safety data sheet corresponds to our knowledge at the time of revision. The information is intended to provide guidance on the safe handling of the product specified in this safety data sheet during storage, processing, transport and disposal. The information is not transferable to other products. Insofar as the product mentioned in this safety data sheet is mixed, blended or processed with other materials or undergoes treatment, the information in this safety data sheet cannot be transferred to the new material thus produced, unless expressly stated otherwise.