

## Safety Data Sheet

Conforms to Regulation (EC) No. 1907/2006 (REACH), Article 31, Annex II, as amended by Commission Regulation (EU) 2020/878

### FACTORY BASE EP (A)

Date of first edition: 9/9/2021

Safety Data Sheet dated 24/04/2025

version 9

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

### 1.1. Product identifier

Mixture identification:

Trade name: FACTORY BASE EP (A)

Trade code: S100B0003 22

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

Recommended use: primer; Restricted to professional users

Uses advised against: All uses other than recommended ones

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

Company: KERAKOLL S.p.A.

Via dell'Artigianato, 9

41049 Sassuolo (MODENA) - ITALY

Tel.+39 0536 816511 Fax. +39 0536816581

safety@kerakoll.com

### 1.4. Emergency telephone number

European emergency phone number 112

Ireland Emergency medical information: (seven days) contact National Poisons Information Centre, Beaumont Hospital, Dublin 9 DOV2NO, Ireland.

Members of the public Number (8 am-10 pm): +353 (0)1 809 2166

Healthcare professional telephone Number (24hrs): +353 (0)1 809 2566

Malta In case of emergency call: +356 2395 2000 (24h)

## SECTION 2: Hazards identification



### 2.1. Classification of the substance or mixture

#### Regulation (EC) n. 1272/2008 (CLP)

Skin Irrit. 2 Causes skin irritation.

Eye Dam. 1 Causes serious eye damage.

Skin Sens. 1A May cause an allergic skin reaction.

Aquatic Chronic 2 Toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

### 2.2. Label elements

#### Regulation (EC) No 1272/2008 (CLP):

#### Hazard pictograms and Signal Word



Danger

#### Hazard statements

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

- P260 Do not breathe vapours.
- P280 Wear protective gloves and eye protection.
- P302+P352 IF ON SKIN: Wash with plenty of water.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P501 Dispose of contents/container in accordance with applicable regulations.

Contains

[[2-ethylhexyl]oxy]methyl]oxirane

Alcohols, C12-15, branched and linear, ethoxylated

bis-[4-(2,3-epoxipropoxy)phenyl]propane

Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-({2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy}methyl)oxirane

Dir. 2004/42/EC (VOC directive)

Binding primers

EU limit value for this product (cat. A/h): 30 g/l

This product contains max 0.14 g/l VOC.

Special provisions according to Annex XVII of REACH and subsequent amendments:

None.

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration >= 0.1%

Other Hazards: No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Mixture identification: FACTORY BASE EP (A)

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Numb.	Classification	Registration Number
≥20-<50 %	bis-[4-(2,3-epoxipropoxy)phenyl]propane	CAS:1675-54-3 EC:216-823-5 Index:603-073-00-2	Eye Irrit. 2, H319 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411, M-Chronic:1	01-2119456619-26
≥20-<50 %	Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-({2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy}methyl)oxirane	EC:701-263-0	Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Chronic 2, H411, M-Chronic:1	01-2119454392-40
≥5-<10 %	[[2-ethylhexyl]oxy]methyl]oxirane	CAS:2461-15-6 EC:219-553-6	Skin Irrit. 2, H315; Skin Sens. 1A, H317	01-2119962196-31
≥3-<5 %	Alcohols, C12-15, branched and linear, ethoxylated	CAS:106232-83-1	Acute Tox. 4, H302; Eye Dam. 1, H318; Aquatic Chronic 3, H412	

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

- Immediately take off all contaminated clothing.
- OBTAIN IMMEDIATE MEDICAL ATTENTION.
- Remove contaminated clothing immediately and dispose off safely.
- After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

- After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.
- Protect uninjured eye.

In case of Ingestion:

- Do not induce vomiting, get medical attention showing the SDS and label hazardous.

In case of Inhalation:

- Remove casualty to fresh air and keep warm and at rest.

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

Eye irritation  
Eye damages  
Skin Irritation  
Erythema

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

---

### **SECTION 5: Firefighting measures**

#### **5.1. Extinguishing media**

Suitable extinguishing media:

- Water.
- Carbon dioxide (CO<sub>2</sub>).

Extinguishing media which must not be used for safety reasons:

- None in particular.

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

- Do not inhale explosion and combustion gases.
- Burning produces heavy smoke.

#### **5.3. Advice for firefighters**

- Use suitable breathing apparatus .
- Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
- Move undamaged containers from immediate hazard area if it can be done safely.

---

### **SECTION 6: Accidental release measures**

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

**For non emergency personnel:**

- Wear personal protection equipment.
- Remove persons to safety.
- See protective measures under point 7 and 8.

**For emergency responders:**

- Wear personal protection equipment.

#### **6.2. Environmental precautions**

- Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
- Retain contaminated washing water and dispose it.
- In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
- Suitable material for taking up: absorbing material, organic, sand

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

- Suitable material for taking up: absorbing material, organic, sand
- Wash with plenty of water.

#### **6.4. Reference to other sections**

- See also section 8 and 13

---

### **SECTION 7: Handling and storage**

#### **7.1. Precautions for safe handling**

- Avoid contact with skin and eyes, inhalation of vapours and mists.
- Don't use empty container before they have been cleaned.
- Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
- Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

### Advice on general occupational hygiene:

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

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

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

Recommendation(s)

None in particular

Industrial sector specific solutions:

None in particular

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Community Occupational Exposure Limits (OEL)

	OEL Type	Country	Occupational Exposure Limit
docusate sodium CAS: 577-11-7	NATIONAL	ROMANIA	Short Term: 20 mg/m <sup>3</sup> Source: Republicarea 1 - nr. 743 din 29 iulie 2021
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) CAS: 55965-84-9	NATIONAL	GERMANY	Long Term: 0.2 mg/m <sup>3</sup> ; Short Term: 0.4 mg/m <sup>3</sup> DFG; Long term and short term: inhalable fraction Source: TRGS900
	NATIONAL	AUSTRIA	Long Term: 0.05 mg/m <sup>3</sup> MAK, Sh Source: GKV, BGBl. II Nr. 156/2021
	SUVA	SWITZERLAND	Long Term: 0.2 mg/m <sup>3</sup> ; Short Term: 0.4 mg/m <sup>3</sup> TWA mg/m <sup>3</sup> : (i), S, SSC, VRS Peau Yeux / OAW Haut Auge Source: suva.ch/valeurs-limites

#### Predicted No Effect Concentration (PNEC) values

bis-[4-(2,3-epoxipropoxy)phenyl]propane CAS: 1675-54-3	Exposure Route: Fresh Water; PNEC Limit: 0.006 mg/l
	Exposure Route: Marine water; PNEC Limit: 600 ng/L
	Exposure Route: Freshwater sediments; PNEC Limit: 0.996 mg/kg
	Exposure Route: Marine water sediments; PNEC Limit: 0.099 mg/kg
	Exposure Route: Soil; PNEC Limit: 0.196 mg/kg
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 10 mg/l
	Exposure Route: Intermittent releases (fresh water); PNEC Limit: 0.018 mg/l
Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-({2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy}methyl)oxirane	Exposure Route: Fresh Water; PNEC Limit: 3 µg/l
	Exposure Route: Intermittent releases (fresh water); PNEC Limit: 25.4 µg/l
	Exposure Route: Marine water; PNEC Limit: 300 ng/L
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 10 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 294 µg/kg
	Exposure Route: Marine water sediments; PNEC Limit: 29.4 µg/kg
	Exposure Route: Soil; PNEC Limit: 237 µg/kg
[[[2-ethylhexyl)oxy]methyl]	Exposure Route: Fresh Water; PNEC Limit: 0.007 mg/l

oxirane  
CAS: 2461-15-6

Exposure Route: Intermittent releases (fresh water); PNEC Limit: 0.072 mg/l

Exposure Route: Freshwater sediments; PNEC Limit: 286.66 mg/kg

Exposure Route: Marine water sediments; PNEC Limit: 28.66 mg/kg

Exposure Route: Soil; PNEC Limit: 57.16 mg/kg

#### Derived No Effect Level (DNEL) values

bis-[4-(2,3-epoxipropoxy)phenyl]propane  
CAS: 1675-54-3

Exposure Route: Human Oral; Exposure Frequency: Long Term, local effects  
Worker Professional: 0.75 mg/kg

Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects  
Worker Professional: 0.75 mg/kg

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects  
Worker Professional: 3.571 mg/kg

Exposure Route: Human Dermal; Exposure Frequency: Long Term, local effects  
Worker Professional: 3.571 mg/kg

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects  
Worker Professional: 12.25 mg/m<sup>3</sup>

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects  
Worker Professional: 12.25 mg/m<sup>3</sup>

Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-(2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl)oxirane

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects  
Worker Professional: 29.39 mg/m<sup>3</sup>; Consumer: 8.7 mg/m<sup>3</sup>

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects  
Worker Professional: 104.15 mg/kg; Consumer: 62.5 mg/kg

Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects  
Consumer: 6.25 mg/kg

[[[2-ethylhexyl)oxy)methyl]oxirane  
CAS: 2461-15-6

Exposure Route: Human Dermal; Exposure Frequency: Short Term, systemic effects  
Consumer: 0.5 mg/kg

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects  
Consumer: 2.5 mg/kg

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects  
Worker Professional: 4.17 mg/kg

## 8.2. Exposure controls

Eye protection:

Eye glasses with side protection.(EN166)

Protection for skin:

Chemical protection clothing. Safety shoes.

Protection for hands:

Suitable materials for safety gloves (EN 374, EN 16523-1:2015+A1:2018: Level 6):

Nitrile rubber - NBR: thickness ≥0,4mm; breakthrough time ≥480min.

Butyl rubber - IIR: thickness ≥0,4mm; breakthrough time ≥480min.

Respiratory protection:

Respiratory protective equipment should be worn when there is a possibility that the exposure limit value will be exceeded. In the absence of exposure limit values, respiratory protective equipment should be worn when adverse effects occur, such as respiratory irritation or discomfort, or if indicated by the results of your risk assessment. Use the following CE-approved air-purifying respirator: A-type organic vapour cartridge (boiling point >65°C)

Thermal Hazards:

Not expected if used as intended

Environmental exposure controls:

---

## SECTION 9: Physical and chemical properties

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

Physical state: Liquid  
Colour: White  
Odour: Odourless  
Odour threshold: N.A.  
pH: =10.00 ( OECD 122 )  
Kinematic viscosity: <= 20,5 mm<sup>2</sup>/sec (40 °C)  
Melting point/freezing point: N.A.  
Boiling point or initial boiling point and boiling range: > 147 °C (297 °F)  
Flash point: 100 °C (212 °F)  
Lower and upper explosion limit: N.A.  
Relative vapour density: N.A.  
Vapour pressure: N.A.  
Density and/or relative density: 1.08 g/cm<sup>3</sup> ( ISO 2811 )  
Solubility in water: Miscible  
Solubility in oil: N.A.  
Partition coefficient n-octanol/water (log value): N.A.  
Auto-ignition temperature: N.A.  
Decomposition temperature: N.A.  
Flammability: N.A.  
Volatile Organic compounds - VOCs = 0.03 % ; 0.27 g/l

#### Particle characteristics:

Particle size: N.A.

### 9.2. Other information

No other relevant information

---

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable under normal conditions

### 10.2. Chemical stability

Data not available.

### 10.3. Possibility of hazardous reactions

None.

### 10.4. Conditions to avoid

Stable under normal conditions.

### 10.5. Incompatible materials

None in particular.

### 10.6. Hazardous decomposition products

None.

---

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Toxicological Information of the Preparation

a) acute toxicity	Not classified Based on available data, the classification criteria are not met
b) skin corrosion/irritation	The product is classified: Skin Irrit. 2(H315)
c) serious eye damage/irritation	The product is classified: Eye Dam. 1(H318)
d) respiratory or skin sensitisation	The product is classified: Skin Sens. 1A(H317)
e) germ cell mutagenicity	Not classified Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified Based on available data, the classification criteria are not met
h) STOT-single exposure	Not classified Based on available data, the classification criteria are not met

i) STOT-repeated exposure	Not classified
	Based on available data, the classification criteria are not met
j) aspiration hazard	Not classified
	Based on available data, the classification criteria are not met

#### Toxicological information on main components of the mixture:

bis-[4-(2,3-epoxipropoxy)phenyl]propane	a) acute toxicity	LD50 Oral Rabbit = 19800 mg/kg	
		LD50 Skin Rabbit > 20 mg/kg 24h	
	b) skin corrosion/irritation	Skin Irritant Rabbit Positive	epoxy resin with an average molecular mass <= 700 d irritate skin of rabbits
	c) serious eye damage/irritation	Eye Irritant Rabbit Yes	
	d) respiratory or skin sensitisation	Skin Sensitization Positive	Mouse
	f) carcinogenicity	Genotoxicity Negative Carcinogenicity Oral Rat = 15 mg/kg Carcinogenicity Skin Rat = 1 mg/kg	Mouse, oral NOAEL NOAEL
	g) reproductive toxicity	No Observed Effect Level Oral Rat = 750 mg/kg	
Reaction mass of 2,2'-(methylenebis(2,1-phenyleneoxymethylene))bis(oxirane) and 2,2'-(methylenebis(4,1-phenyleneoxymethylene))bis(oxirane) and 2-({2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy}methyl)oxirane	a) acute toxicity	LD50 Oral Rat > 5000 mg/kg	
		LD50 Skin Rat > 2000 mg/kg 24h	
	b) skin corrosion/irritation	Skin Irritant Rabbit Positive 4h	
	c) serious eye damage/irritation	Eye Irritant Rabbit No	
	d) respiratory or skin sensitisation	Skin Sensitization Positive	Mouse
	f) carcinogenicity	Genotoxicity Negative	Hamster oral route
	g) reproductive toxicity	No Observed Adverse Effect Level Oral Rat = 750 mg/kg	
[[[2-ethylhexyl)oxy]methyl]oxirane	a) acute toxicity	LD50 Oral Rat = 5000 mg/kg	
		LD50 Skin Rat = 2000 mg/kg	
Alcohols, C12-15, branched and linear, ethoxylated	a) acute toxicity	LD50 Oral > 300 mg/kg	

#### 11.2. Information on other hazards

##### Endocrine disrupting properties:

No endocrine disruptor substances present in concentration >= 0.1%

## SECTION 12: Ecological information

### 12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

Toxic to aquatic life with long lasting effects.

#### List of Eco-Toxicological properties of the product

The product is classified: Aquatic Chronic 2(H411)

#### List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
bis-[4-(2,3-epoxipropoxy)phenyl]propane	CAS: 1675-54-3 - EINECS: 216-823-5 - INDEX: 603-073-00-2	a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 2 mg/L 96h  a) Aquatic acute toxicity : LC50 Daphnia Daphnia magna = 1.8 mg/L 48h a) Aquatic acute toxicity : EC50 Algae Scenedesmus capricornutum = 11 mg/L 72h EPA-660/3-75-009  c) Bacteria toxicity : EC50 Sludge activated sludge = 100 mg/L 3h
Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-(2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl)oxirane	EINECS: 701-263-0	a) Aquatic acute toxicity : LC50 Fish Leuciscus idus = 2.54 mg/L 96h  a) Aquatic acute toxicity : LC50 Daphnia Daphnia magna = 2.55 mg/L 48h b) Aquatic chronic toxicity : NOEC Daphnia Daphnia magna = 0.3 mg/L - 21days  a) Aquatic acute toxicity : EC50 Algae Selenastrum capricornutum = 1.8 mg/L 72h  a) Aquatic acute toxicity : NOEC Sludge activated sludge = 100 mg/L 3h
[[2-(2-ethylhexyl)oxy)methyl]oxirane	CAS: 2461-15-6 - EINECS: 219-553-6	a) Aquatic acute toxicity : LC50 Fish Gold Fish = 5000 mg/L 96h
Alcohols, C12-15, branched and linear, ethoxylated	CAS: 106232-83-1	a) Aquatic acute toxicity : EC50 Daphnia Daphnia Magna = 7.2 mg/L 48h a) Aquatic acute toxicity : LC50 Fish Carassius Auratus < 10 mg/L 96h CESIO  a) Aquatic acute toxicity : EC50 Honeybees Daphnie < 10 mg/L 48h CESIO

#### 12.2. Persistence and degradability

Component	Persistence/Degradability:	Test	Duration	Value	Notes:
bis-[4-(2,3-epoxipropoxy)phenyl]propane	Non-readily biodegradable	Oxygen consumption			OECD Guideline 301 F (Ready Biodegradability Manometric Respirometry Test)
Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-(2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl)oxirane	Non-readily biodegradable			16.000	28days
Alcohols, C12-15, branched and linear, ethoxylated	Readily biodegradable		28d		>70% (OECD tg 301)

#### 12.3. Bioaccumulative potential

Component	Bioaccumulation	Test	Value
bis-[4-(2,3-epoxipropoxy)phenyl]propane	Bioaccumulative	BCF - Bioconcentration factor	31.000
Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-	Bioaccumulative	BCF - Bioconcentration factor	150.000



phenyleneoxymethylene)]bis  
(oxirane) and 2-({2-[4-(oxiran-2-  
ylmethoxy)benzyl]phenoxy}  
methyl)oxirane

#### 12.4. Mobility in soil

Data not available.

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

No PBT or vPvB substances present in concentration  $\geq 0.1\%$

#### 12.6. Endocrine disrupting properties

No endocrine disruptor substances present in concentration  $\geq 0.1\%$

#### 12.7. Other adverse effects

Data not available.

---

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force. Disposal through discharge into wastewater is not permitted

A waste code according to the European List of Wastes (LoW) cannot be specified, due to dependence on the usage. Contact an authorized waste disposal service.

The product disposed of as such, pursuant to Regulation (EU) 1357/2014, must be classified as hazardous waste

---

### SECTION 14: Transport information

Not classified as dangerous in the meaning of transport regulations.

#### 14.1. UN number or ID number

#### 14.2. UN proper shipping name

ADR-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis-[4-(2,3-epoxipropoxi)phenyl]propane - Bisphenol-F-epichlorohydrin resin)

IATA-Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis-[4-(2,3-epoxipropoxi)phenyl]propane - Bisphenol-F-epichlorohydrin resin)

IMDG-Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis-[4-(2,3-epoxipropoxi)phenyl]propane - Bisphenol-F-epichlorohydrin resin)

#### 14.3. Transport hazard class(es)

ADR-Class:

IATA-Class: 9

IMDG-Class: 9

#### 14.4. Packing group

ADR-Packing Group:

IATA-Packing group: III

IMDG-Packing group: III

#### 14.5. Environmental hazards

Most important toxic component: bis-[4-(2,3-epoxipropoxi)phenyl]propane

IMDG-EMS: F-A, S-F

#### 14.6. Special precautions for user

Road and Rail (ADR-RID):

ADR-Label: 9

ADR - Hazard identification number: 90

ADR-Special Provisions: 274 335 375 601

ADR-Transport category (Tunnel restriction code): 3 (-)

ADR Limited Quantities: 5 L

ADR Excepted Quantities: E1

Air (IATA):

IATA-Passenger Aircraft: 964

IATA-Cargo Aircraft: 964

IATA-Label: 9

IATA-Subsidiary hazards: -

IATA-Erg: 9L

IATA-Special Provisions: A97 A158 A197 A215

Sea (IMDG):

IMDG-Stowage Code: Category A

IMDG-Stowage Note: -

IMDG-Subsidiary hazards: -

IMDG-Special Provisions: 274 335 969

#### 14.7. Maritime transport in bulk according to IMO instruments

N.A.

### SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)

Regulation (EU) n. 2016/1179 (ATP 9 CLP)

Regulation (EU) n. 2017/776 (ATP 10 CLP)

Regulation (EU) n. 2018/669 (ATP 11 CLP)

Regulation (EU) n. 2018/1480 (ATP 13 CLP)

Regulation (EU) n. 2019/521 (ATP 12 CLP)

Regulation (EU) n. 2020/217 (ATP 14 CLP)

Regulation (EU) n. 2020/1182 (ATP 15 CLP)

Regulation (EU) n. 2021/643 (ATP 16 CLP)

Regulation (EU) n. 2021/849 (ATP 17 CLP)

Regulation (EU) n. 2022/692 (ATP 18 CLP)

Regulation (EU) n. 2020/878

Regulation (EC) nr 648/2004 (Detergents).

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product: 3

Restrictions related to the substances contained: 75

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1	Lower-tier threshold (tonnes)	Upper-tier threshold (tonnes)
--	-------------------------------	-------------------------------

Product belongs to category: E2	200	500
---------------------------------	-----	-----

#### Explosives precursors – Regulation 2019/1148

No substances listed

#### Regulation (EU) No 649/2012 (PIC regulation)

No substances listed

#### German Water Hazard Class.

3: Severe hazard to waters

#### German Lagerklasse according to TRGS 510:

LGK 10

SVHC Substances:

No SVHC substances present in concentration  $\geq$  0.1%

#### Dir. 2004/42/EC (VOC directive)

(ready to use)

Volatile Organic compounds - VOCs = 0.01 %

Volatile Organic compounds - VOCs = 0.14 g/L

FACTORY BASE EP (A) (not ready to use)

Volatile Organic compounds - VOCs = 0.03 %

Volatile Organic compounds - VOCs = 0.27 g/L

## 15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

### Substances for which a Chemical Safety Assessment has been carried out:

bis-[4-(2,3-epoxipropoxy)phenyl]propane

## SECTION 16: Other information

Code	Description
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Code	Hazard class and hazard category	Description
3.1/4/Oral	Acute Tox. 4	Acute toxicity (oral), Category 4
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/1	Eye Dam. 1	Serious eye damage, Category 1
3.3/2	Eye Irrit. 2	Eye irritation, Category 2
3.4.2/1	Skin Sens. 1	Skin Sensitisation, Category 1
3.4.2/1A	Skin Sens. 1A	Skin Sensitisation, Category 1A
4.1/C2	Aquatic Chronic 2	Chronic (long term) aquatic hazard, category 2
4.1/C3	Aquatic Chronic 3	Chronic (long term) aquatic hazard, category 3

### Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method
Skin Sens. 1A, H317	Calculation method
Aquatic Chronic 2, H411	Calculation method

This document was prepared by a competent person who has received appropriate training.

#### Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

#### Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

BCF: Biological Concentration Factor

BEI: Biological Exposure Index

BOD: Biochemical Oxygen Demand

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CAV: Poison Center

CE: European Community

CLP: Classification, Labeling, Packaging.

CMR: Carcinogenic, Mutagenic and Reprotoxic

COD: Chemical Oxygen Demand

COV: Volatile Organic Compound

CSA: Chemical Safety Assessment

CSR: Chemical Safety Report

DMEL: Derived Minimal Effect Level  
 DNEL: Derived No Effect Level.  
 DPD: Dangerous Preparations Directive  
 DSD: Dangerous Substances Directive  
 EC50: Half Maximal Effective Concentration  
 ECHA: European Chemicals Agency  
 EINECS: European Inventory of Existing Commercial Chemical Substances.  
 ES: Exposure Scenario  
 GefStoffVO: Ordinance on Hazardous Substances, Germany.  
 GHS: Globally Harmonized System of Classification and Labeling of Chemicals.  
 IARC: International Agency for Research on Cancer  
 IATA: International Air Transport Association.  
 IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).  
 IC50: half maximal inhibitory concentration  
 ICAO: International Civil Aviation Organization.  
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).  
 IMDG: International Maritime Code for Dangerous Goods.  
 INCI: International Nomenclature of Cosmetic Ingredients.  
 IRCCS: Scientific Institute for Research, Hospitalization and Health Care  
 KAFH: Keep Away From Heat  
 KSt: Explosion coefficient.  
 LC50: Lethal concentration, for 50 percent of test population.  
 LD50: Lethal dose, for 50 percent of test population.  
 LDLo: Leathal Dose Low  
 N.A.: Not Applicable  
 N/A: Not Applicable  
 N/D: Not defined/ Not available  
 NA: Not available  
 NIOSH: National Institute for Occupational Safety and Health  
 NOAEL: No Observed Adverse Effect Level  
 OSHA: Occupational Safety and Health Administration  
 PBT: Persistent, Bioaccumulative and Toxic  
 PGK: Packaging Instruction  
 PNEC: Predicted No Effect Concentration.  
 PSG: Passengers  
 RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.  
 STEL: Short Term Exposure limit.  
 STOT: Specific Target Organ Toxicity.  
 TLV: Threshold Limiting Value.  
 TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).  
 vPvB: Very Persistent, Very Bioaccumulative.  
 WGK: German Water Hazard Class.

**Paragraphs modified from the previous revision:**

- SECTION 1: Identification of the substance/mixture and of the company/undertaking
- SECTION 2: Hazards identification
- SECTION 3: Composition/information on ingredients
- SECTION 8: Exposure controls/personal protection
- SECTION 9: Physical and chemical properties
- SECTION 11: Toxicological information
- SECTION 12: Ecological information
- SECTION 14: Transport information
- SECTION 15: Regulatory information
- SECTION 16: Other information

# Exposure Scenario

## bis-[4-(2,3-epoxipropoxy)phenyl]propane

### Exposure Scenario, 07/06/2021

Substance identity	
	bis-[4-(2,3-epoxipropoxy)phenyl]propane
CAS No.	1675-54-3
INDEX No.	603-073-00-2
EINECS No.	216-823-5
Registration number	01-2119456619-26

### Table of contents

1. **ES 1** Widespread use by professional workers; ESC2\_0000001

1. ES 1		Widespread use by professional workers; ESC2_0000001	
<b>1.1 TITLE SECTION</b>			
Exposure Scenario name	Professional application of coatings and inks - Etching agent - Resins (prepolymers) - Adhesion promotor		
Date - Version	27/05/2021 - 1.0		
Life Cycle Stage	Widespread use by professional workers		
Main user group	Professional uses		
Sector(s) of use	Professional uses (SU22)		
Product Categories	ESC2_0000001		
Article Category(ies)	Other articles made of stone, plaster, cement, glass or ceramic (AC4g)		
<b>Environment Contributing Scenario</b>			
CS1	ERC8c - ERC8f		
<b>Worker Contributing Scenario</b>			
CS2 Material transfers	PROC8a		
CS3 Rolling, Brushing	PROC10		
CS4 Roller, spreader, flow application	PROC11		
CS5 Mixing operations - Manual	PROC19		
<b>1.2 Conditions of use affecting exposure</b>			
<b>1.2. CS1: Environment Contributing Scenario (ERC8c, ERC8f)</b>			
Environmental release categories	Widespread use leading to inclusion into/onto article (indoor) - Widespread use leading to inclusion into/onto article (outdoor) (ERC8c, ERC8f)		
<i>Product (article) characteristics</i>			
<b>Physical form of product:</b> Liquid, vapour pressure < 0,5 kPa at STP			
<b>Concentration of substance in product:</b> Covers percentage substance in the product up to 100 %.			
<i>Amount used, frequency and duration of use (or from service life)</i>			
<b>Amounts used:</b> Daily amount per site = 175 kg/day			
<b>Release type:</b> Continuous release			
<b>Emission days:</b> 365 days per year			
<i>Technical and organisational conditions and measures</i>			
<b>Control measures to prevent releases</b> Provide onsite wastewater removal efficiency of <sup>3</sup> (%):			
<i>Conditions and measures related to sewage treatment plant</i>			
<b>STP type:</b> Municipal Sewage Treatment Plant			
<b>STP effluent (m<sup>3</sup>/day):</b> 2			
<i>Conditions and measures related to treatment of waste (including article waste)</i>			
<b>Waste treatment</b> Dispose of waste cans and containers according to local regulations.			
<i>Other conditions affecting environmental exposure</i>			

**Local marine water dilution factor:** 100  
**Local freshwater dilution factor:** 10  
**Receiving surface water flow:** 18000 m<sup>3</sup>/day  
Covers indoor and outdoor use

## 1.2. CS2: Worker Contributing Scenario: Material transfers (PROC8a)

<b>Process Categories</b>	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)
---------------------------	--

### *Product (article) characteristics*

#### **Physical form of product:**

Liquid, vapour pressure < 0,5 kPa at STP

#### **Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

### *Amount used, frequency and duration of use/exposure*

#### **Duration:**

Covers daily exposures up to 8 hours

### *Technical and organisational conditions and measures*

#### **Technical and organisational measures**

Avoid carrying out activities involving exposure for more than 4 hours per day.

### *Conditions and measures related to personal protection, hygiene and health evaluation*

#### **Personal protection**

Wear chemically resistant gloves (tested to EN374) in combination with "basic" employee training.

#### *Other conditions affecting worker exposure*

**Temperature:** Assumes use at not more than 20 °C above ambient temperature.

## 1.2. CS3: Worker Contributing Scenario: Rolling, Brushing (PROC10)

<b>Process Categories</b>	Roller application or brushing (PROC10)
---------------------------	---

### *Product (article) characteristics*

#### **Physical form of product:**

Liquid, vapour pressure < 0,5 kPa at STP

#### **Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

### *Amount used, frequency and duration of use/exposure*

#### **Duration:**

Covers daily exposures up to 8 hours

### *Technical and organisational conditions and measures*

#### **Technical and organisational measures**

Avoid carrying out activities involving exposure for more than 4 hours per day.

### *Conditions and measures related to personal protection, hygiene and health evaluation*

#### **Personal protection**

Wear chemically resistant gloves (tested to EN374) in combination with "basic" employee training.

#### *Other conditions affecting worker exposure*

**Temperature:** Assumes use at not more than 20 °C above ambient temperature.

## 1.2. CS4: Worker Contributing Scenario: Roller, spreader, flow application (PROC11)

<b>Process Categories</b>	Non industrial spraying (PROC11)
---------------------------	----------------------------------

### *Product (article) characteristics*

#### **Physical form of product:**

Liquid, vapour pressure < 0,5 kPa at STP

**Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

***Amount used, frequency and duration of use/exposure*****Duration:**

Covers daily exposures up to 8 hours

***Technical and organisational conditions and measures*****Technical and organisational measures**

Avoid carrying out activities involving exposure for more than 4 hours per day.

***Conditions and measures related to personal protection, hygiene and health evaluation*****Personal protection**

Wear chemically resistant gloves (tested to EN374) in combination with "basic" employee training.

Wear suitable face shield.

Wear an impervious suit.

Wear a respirator conforming to EN140.

***Other conditions affecting worker exposure***

**Temperature:** Assumes use at not more than 20 °C above ambient temperature.

**1.2. CS5: Worker Contributing Scenario: Mixing operations - Manual (PROC19)****Process Categories**

Manual activities involving hand contact (PROC19)

***Product (article) characteristics*****Physical form of product:**

Liquid, vapour pressure < 0,5 kPa at STP

**Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

***Amount used, frequency and duration of use/exposure*****Duration:**

Covers daily exposures up to 8 hours

***Technical and organisational conditions and measures*****Technical and organisational measures**

Avoid carrying out activities involving exposure for more than 1 hour per day.

***Conditions and measures related to personal protection, hygiene and health evaluation*****Personal protection**

Wear chemically resistant gloves (tested to EN374) in combination with "basic" employee training.

***Other conditions affecting worker exposure***

**Temperature:** Assumes use at not more than 20 °C above ambient temperature.

**1.3 Exposure estimation and reference to its source****1.3. CS1: Environment Contributing Scenario (ERC8c, ERC8f)**

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
freshwater	= 0.0022 mg/L	EUSES	= 0.00022
marine sediment	= 0.00127 mg/L	EUSES	= 0.0128
freshwater sediment	= 0.012 mg/L	EUSES	= 0.0369
marine water	= 2.34E-05 mg/L	EUSES	= 0.029
soil	= 0.00142 mg/kg dry weight	EUSES	= 0.00722



### 1.3. CS2: Worker Contributing Scenario: Material transfers (PROC8a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	= 0.84 mg/m <sup>3</sup>	ECETOC TRA worker v2.0	0.07
dermal, systemic, long-term	= 0.2742 mg/kg bw/day	ECETOC TRA worker v2.0	= 0.03

### 1.3. CS3: Worker Contributing Scenario: Rolling, Brushing (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	= 5E-07 mg/m <sup>3</sup>	ECETOC TRA worker v2.0	< 0.001
dermal, systemic, long-term	= 2.743 mg/kg bw/day	ECETOC TRA worker v2.0	= 0.33

### 1.3. CS4: Worker Contributing Scenario: Roller, spreader, flow application (PROC11)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	= 0.36 mg/m <sup>3</sup>	ECETOC TRA worker v2.0	0.03
dermal, systemic, long-term	= 2.68 mg/kg bw/day	ECETOC TRA worker v2.0	= 0.32

### 1.3. CS5: Worker Contributing Scenario: Mixing operations - Manual (PROC19)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	= 2E-07 mg/m <sup>3</sup>	ECETOC TRA worker v2.0	< 0.001
dermal, systemic, long-term	= 1.414 mg/kg bw/day	ECETOC TRA worker v3	< 0.42
combined routes, systemic, long-term	N/A	ECETOC TRA worker v3	= 0.42

## 1.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

### Guidance to check compliance with the exposure scenario:

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.