

according to 1907/2006/EC, Article 31

COLORBERRY GmbH encourages and expects you to read and understand the entire SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

## Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product Identifier

**Product name:** COLORBERRY CRYSTAL RESIN - RESIN

**Product code:** CRYSTAL RESIN

### 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

**Company name:** COLORBERRY GmbH  
Wolfersberg 1  
85667 Oberpframmern  
Germany

**Tel.:** 0049-151-1001 61 31

**email:** kontakt@colorberry.de

### 1.4 EMERGENCY TELEPHONE NUMBER

**Tel.:** 0049-151-1001 61 31

(Mo.-Fr. 8:00 o'clock to 18:00 o'clock office hours only)

## SECTION 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

**Classification according to  
Regulation (EC) No  
1272/2008:**



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

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.

## 2.2 Label elements

**Labelling according to Regulation (EC) No 1272/2008:**

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

GHS07: Exclamation mark

GHS09: Environmental

**Hazard pictograms:**



**Signal word:** Warning

**Hazard-determining components of labelling:**

- Bisphenol A epoxy resin, liquid (MW ≤ 1000)
- Bisphenol-F epichlorohydrin resin MG <1000
- Oxirane, mono [(C12-14-alkyloxy) methyl] derivatives

**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.

**Precautionary statements :**

- P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/ protective clothing/ 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 to a collection point for hazardous waste in accordance with local, regional, national and / or international regulations.

## 2.3 Other hazards

- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Chemical characterisation: Mixtures

- **Description:** Resin mixture

## Dangerous components:

CAS: 25068-38-6 NLP: 500-033-5 Reg.nr.: 01-2119456619-26-	Bisphenol A Epoxidharz, flüssig (MG ≤ 1000) Aquatic Chronic 2, H411 Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	50-75%
CAS:9003-36-5 NLP:500-006-8 Reg.nr.: 01-2119454392-40	Bisphenol-F Epichlorhydrinharz MG <1000  Aquatic Chronic 2, H411 Skin Irrit. 2, H315; Skin Sens. 1, H317	25-<50%
CAS: 68609-97-2 EINECS: 271-846-8 Reg.nr.: 01-2119485289-22-0005	oxirane, mono[(C12-14-alkyloxy)methyl] derivs  Skin Irrit. 2, H315; Skin Sens. 1, H317	10-<25%

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

## SECTION 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

- General advice:** Immediately remove any clothing soiled by the product.
- Inhalation:** Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- Skin contact:** Immediately wash with water and soap and rinse thoroughly.  
Immediately rinse with water.
- Eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- Swallowing:** Rinse out mouth and then drink plenty of water.

### 4.2 Most important symptoms and effects, both acute and delayed:

No further relevant information available

### 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:** CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray.

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

No further relevant information available

## 5.3 Advice for firefighters

- Protective equipment:** Wear self-contained respiratory protective device.  
Wear fully protective suit.
- Additional information:** Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.  
Collect contaminated fire fighting water separately. It must not enter the sewage system.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures:

- Personal precautions, protective equipment and emergency procedures:** Wear protective equipment. Keep unprotected persons away.

### 6.2 Environmental precautions:

- Environmental precautions:** Do not allow product to reach sewage system or any water course.  
Do not allow to penetrate the ground/soil.  
Do not allow to enter sewers/ surface or ground water.

### 6.3 Methods and materials for containment and cleaning up:

- Clean-up procedures:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.

### 6.4 Reference to other sections

- Reference to other sections:** See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## SECTION 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling:

Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.

- Information about fire - and explosion protection:** No special measures required.

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

- Storage:** Requirements to be met by storerooms and receptacles: Prevent any seepage into the ground.  
· Information about storage in one common storage facility: Not required.  
· Further information about storage conditions:  
Store receptacle in a well ventilated area.  
Keep container tightly sealed.

### 7.3 Specific end use(s):

No further relevant information available.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

**Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

#### DNELs

##### 1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane

Oral	Acute - systemic effects	0.5 mg/kg bw/day (general population)
Dermal	Long term - systemic effects	0.0893 mg/kg bw/day (general population) 0.75 mg/kg bw/day (worker)
Inhalative	Long term - systemic effects	0.87 mg/m <sup>3</sup> (general population) 4.93 mg/m <sup>3</sup> (worker)

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

Oral	Long term - systemic effects	6.25 mg/kg bw/day (general population)
Dermal	Long term - systemic effects	62.5 mg/kg bw/day (general population) 104.15 mg/kg bw/day (worker)
Inhalative	Long term - systemic effects	8.7 mg/m <sup>3</sup> (general population) 29.39 mg/m <sup>3</sup> (worker)

#### PNECs

##### 1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane

PNEC aqua	0.006 mg/L (fresh water) 0.001 mg/L (marine water)
PNEC sediment	0.341 mg/kg sediment (fresh water) 0.034 mg/kg sediment (marine water)
PNEC STP	10 mg/l (sewage)
PNEC soil	0.065 mg/kg soil dw (soil)
PNEC oral	11 mg/kg food (secondary poisoning)

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

PNEC aqua	0.025 mg/L (Intermittent releases) 0.003 mg/L (fresh water) 0 mg/L (marine water)
PNEC sediment	0.294 mg/kg sediment (fresh water) 0.029 mg/kg sediment (marine water)
PNEC STP	10 mg/l (sewage)

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PNEC soil 0.237 mg/kg soil dw (soil)

**Additional information:** The lists valid during the making were used as basis.

## 8.2 Exposure controls

· Personal protective equipment:

**General protective and hygienic measures:** Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.  
**Respiratory protection:** Use suitable respiratory protective device in case of insufficient ventilation.

**Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves** 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 can not be calculated in advance and has therefore to be checked prior to the application.

Butyl rubber, BR

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.7$  mm

**Penetration time of glove material** For the mixture of chemicals mentioned below the penetration time has to be at least  $> 480$  minutes

(Permeation according to EN 374 Part 3: Level 6).

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

**Eye protection:**



Tightly sealed goggles

**Body protection:** Protective work clothing

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

#### General Information

<b>Form:</b>	Fluid
<b>Color:</b>	Light yellow
<b>Odour:</b>	Characteristic
<b>Odour threshold:</b>	Not determined.
<b>pH-value:</b>	Not determined.
<b>Change in condition</b>	Undetermined.
<b>Melting point/freezing point:</b>	
<b>Initial boiling point and boiling range:</b>	200 °C
<b>Solidification point:</b>	- 5 °C
<b>Flash point:</b>	100 °C
<b>Flammability (solid, gas):</b>	Not applicable.
<b>Ignition temperature:</b>	>300 °C
<b>Decomposition temperature:</b>	Not determined.
<b>Auto-ignition temperature:</b>	Product is not selfigniting.
<b>Explosive properties:</b>	Product does not present an explosion hazard.
<b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Vapour pressure at 20 °C:</b>	<2 hPa
<b>Density at 20 °C:</b>	1.1295 g/cm <sup>3</sup>
<b>Relative density</b>	Not determined.
<b>Vapour density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.
<b>Solubility in / Miscibility with</b>	
<b>water:</b>	Not miscible or difficult to mix.
<b>aromatic hydrocarbons:</b>	Not miscible or difficult to mix.
<b>organic solvents:</b>	Soluble in many organic solvents.
<b>Partition coefficient: n-octanol/water:</b>	Not determined.
<b>Viscosity:</b>	Not determined.
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<b>9.2 Other information</b>	No further relevant information available.

## SECTION 10. STABILITY AND REACTIVITY

### 10.1 Reactivity:

**Reactivity:** No further relevant information available.

### 10.2 Chemical stability:

**Chemical stability:** Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

### 10.3 Possibility of hazardous reactions:

**Possibility of hazardous reactions:** Exothermic polymerisation.  
May produce violent reactions with bases and numerous organic substances including alcohols and amines.

### 10.4 Conditions to avoid:

**Conditions to avoid:** No further relevant information available.

### 10.5 Incompatible materials:

**Incompatible materials:** No further relevant information available.

### 10.6 Hazardous decomposition products:

**Hazardous decomposition products:** Irritant gases/vapours

## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

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

**LD/LC50 values relevant for classification:** 1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane  
Oral LD50 23,000 mg/kg (rat)  
Dermal LD50 23,000 mg/kg (rabbit)

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

Oral LD50 >5,000 mg/kg (rat)  
Dermal LD50 >2,000 mg/kg (rat)

**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 toxicity 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.
- Reproductive 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

### 12.1 Toxicity

**Aquatic toxicity:** **1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane**  
 LC50/96h 2 mg/l (Oncorhynchus mykiss)  
 EC50/48h 1.8 mg/l (daphnia magna)  
 EC50/72h 11 mg/l (algae)

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

LC50/96h 100 mg/l (fish)

### 12.2 Persistence and degradability

**Persistence and degradability:** No further relevant information available.

**Other information:** The product is not easily biodegradable.

### 12.3 Bioaccumulative potential

**Bioaccumulative potential:** No further relevant information available.

### 12.4 Mobility in soil

**Mobility in soil:** No further relevant information available.

#### Ecotoxicological effects:

**Remark:** Toxic for fish

**Additional ecological information:** Toxic for aquatic organisms

**General notes:** Water hazard class 2 (German Regulation) (Self-assessment): hazardous

for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

### 12.5 Results of PBT and vPvB assessment

**PBT:** Not applicable.

**vPvB:** Not applicable.

### 12.6 Other adverse effects

**Other adverse effects:** No further relevant information available.

## SECTION 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

**Recommendation:** Must be specially treated adhering to official regulations.

Uncleaned packaging:

**Recommendation:** Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

## SECTION 14. TRANSPORT INFORMATION

### 14.1 UN-Number

ADR, IMDG, IATA: UN3082

### 14.2 UN proper shipping name

**ADR:** 3082 UMWELTGEFÄHRDENDER STOFF, FLÜSSIG,  
N.A.G. (Epoxidharz)

**IMDG:** E N V I R O M E N T A L L Y H A Z A R D O U S S U B S T A N C E ,  
LIQUID, N.O.S. (Epoxide resin), MARINE POLLUTANT

**IATA:** E N V I R O M E N T A L L Y H A Z A R D O U S S U B S T A N C E ,  
LIQUID, N.O.S. (Epoxide resin)

### 14.3 Transport hazard class(es)

ADR, IMDG, IATA:



**Class:** 9 Miscellaneous dangerous substances and articles.

**Label:** 9

### 14.4 Packing group

ADR, IMDG, IATA III

### 14.5 Environmental hazards

**Product contains environmentally hazardous substances:** bis[4-(2,3-epoxypropoxy)phenyl]propane

**Marine pollutant:** Yes  
Symbol (fish and tree)

**Special marking (ADR):** Symbol (fish and tree)

**Special marking (IATA):** Symbol (fish and tree)

### 14.6 Special precautions for user

**Warning:** Miscellaneous dangerous substances and articles.

**Danger code (Kemler):** 90

**EMS Number:** F-A,S-F

**Stowage Category** A

## 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

### Transport/Additional information:

#### ADR

**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

**Tunnel restriction code:** -

#### IMDG:

**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

**UN "Model Regulation":** U N 3 0 8 2 E N V I R O N M E N T A L L Y H A Z A R D O U S  
SUBSTANCE, LIQUID, N.O.S. (EPOXIDE RESIN), 9, III

## SECTION 15. REGULATORY INFORMATION

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

#### TSCA (Toxic Substances Control Act):

1675-54-3	bis[4-(2,3-epoxypropoxy)phenyl]propane	ACTIVE
68609-97-2	oxirane, mono[(C12-14-alkyloxy)methyl] derivs	ACTIVE

- Directive 2012/18/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 XVII Conditions of restriction: 3
- National regulations:
- Waterhazard 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

### 16.1 OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

#### • **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.

#### • **Department issuing SDS: CEO**

• **Contact:** *Mrs. Stephanie Walberer*

#### • **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

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 Harmonised 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 (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2