COLOR BERRY®

complication date: 02.11.2020
Revision No.: 4

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.

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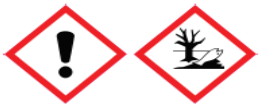
2.2 Label elements

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:



Singnal 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

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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: CO2, 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

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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 prodecures: 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.

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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)
Inhalalative	Long term - systemic effects	0.87 mg/m³ (general population) 4.93 mg/m³ (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)
Inhalalative	Long term - systemic effects	8.7 mg/m³ (general population) 29.39 mg/m³ (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)

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: ≥ 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

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

General Information

Form:	Fluid
Color:	Light yellow
Odour:	Characteristic
Odour threshold:	Not determined.
pH-value:	Not determined.
Change in condition	Undetermined.
Melting point/freezing point:	
Initial boiling point and boiling range:	200 °C
Solidification point:	- 5 °C
Flash point:	100 °C
Flammability (solid, gas):	Not applicable.
Ignition temperature:	>300 °C
Decomposition temperature:	Not determined.
Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapour pressure at 20 °C:	<2 hPa
Density at 20 °C:	1.1295 g/cm³
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with	
water:	Not miscible or difficult to mix.
aromatic hydrocarbons:	Not miscible or difficult to mix.
organic solvents:	Soluble in many organic solvents.
Partition coefficient: n-octanol/water:	Not determined.
Viscosity:	Not determined.
Dynamic:	Not determined.
Kinematic:	Not determined.
9.2 Other information	No further relevant information available.

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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.

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CMR effects (carcinogenity, 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.

Ecotoxical 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.

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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 OME N T A L L Y HA ZA R DO U S S U BS T A N C E , LIQUID, N.O.S. (Epoxide resin), MARINE POLLUTANT
IATA: E N V I R OME N T A L L Y HA ZA R DO U S S U BS 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

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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 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.

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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

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complication date: 02.11.2020
Version No.: 3

according to 1907/2006/EC, Article 31

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

1.1 Product Identifier

Product name: COLORBERRY CRYSTAL RESIN - HARDENER

Product code: CRYSTAL RESIN - HARDENER

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** Hardening agent/ Curing agent

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:

GHS05 corrosion
Skin Corr. 1B H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.

GHS07
Acute Tox. 4 H302 Harmful if swallowed.
Acute Tox. 4 H312 Harmful in contact with skin.
Acute Tox. 4 H332 Harmful if inhaled.
Skin Sens. 1 H317 May cause an allergic skin reaction.

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2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008: The product is classified and labelled according to the CLP regulation.

Hazard pictograms:

GHS05
GHS07

Singnal word: Danger

Hazard-determining components of labelling: Formaldehyde, polymer with N-(3-aminopropyl)-1,3-propanediamine
3-aminomethyl-3,5,5-trimethylcyclohexylamine
Benzyl alcohol

Hazard statements:
H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.

Precautionary statements :
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310 Immediately call a POISON CENTER/doctor.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 Specific treatment (see on this label).
P362+P364 Take off contaminated clothing and wash it before reuse.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/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:** Epoxy resin hardener, modified polyamine adduct

Dangerous components:

CAS: 161278-35-9 Polymer	Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332  Formaldehyde, polymer with N-(3-aminopropyl)-1,3-propanediamine	25-50%
CAS: 100-51-6 EINECS: 202-859-9 Index number: 603-057-00-5	Benzyl alcohol  Tox. 4, H302; Acute Tox. 4, H332	25-50%
Reg.nr.: 01-2119492630-38- CAS: 2855-13-2 EINECS: 220-666-8 Index number: 612-067-00-9 Reg.nr.: 01-2119514687-32-	 Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412 Aquatic Chronic 3, H412	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

After inhalation: Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.

After skin contact: Immediately wash with water and soap and rinse thoroughly.Immediately rinse with water. Seek medical treatment.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: If symptoms persist consult doctor.

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

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SECTION 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing agents: CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced. In case of fire, the following can be released:
Nitrogen oxides (NOx)
Carbon monoxide (CO)
Under certain fire conditions, traces of other toxic gases cannot be excluded.

5.3 Advice for firefighters

Protective equipment: Mount respiratory protective device.
Wear self-contained breathing apparatus and chemical-protective clothing

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Personal precautions, protective equipment and emergency procedures: Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:

Environmental precautions: IDo not allow to enter sewers/ surface or ground water.

6.3 Methods and materials for containment and cleaning up:

Clean-up prodecures: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralising agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

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.

Information about fire - and explosion protection: respiratory protective device available.

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7.2 Conditions for safe storage, including any incompatibilities:

Storage: Requirements to be met by storerooms and receptacles:	No special requirements.
Information about storage in one common storage facility:	Do not store together with oxidising and acidic materials.Avoid contact of the product with copper, nickel, zinc, tin or it alloys. Risk of corrosion!
Further information about storage conditions:	Keep container tightly sealed.

7.3 Specific end use(s):

No further relevant information available.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see item 7.

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:	Observe the appropriate biological threshold value (TRGS 903 - Germany). The value and other data of TRGS 900 Germany must be observed

DNELs

38294-64-3 Reaction products of 3- am inomethyl-3,5,5-trimethylcyclohexylamine and 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane

Oral	Long term - systemic effects	0.5 mg/kg bw/day (general population)
Dermal	Long term - systemic effects	0.05 mg/kg bw/day (general population) 0.14 mg/kg bw/day (worker)
Inhalalative	Long term - systemic effects	0.074 mg/m³ (general population) 0.493 mg/m³ (worker)

PNECs

38294-64-3 Reaction products of 3- am inomethyl-3,5,5-trimethylcyclohexylamine and 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane

PNEC aqua	0.111 mg/L (Intermittent releases) 0.011 mg/L (fresh water) 0.001 mg/L (marine water)
PNEC sediment	4,320 mg/kg sediment (fresh water) 432 mg/kg sediment (marine water)
PNEC STP	10 mg/l (sewage)
PNEC soil	864 mg/kg soil dw (soil)

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

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8.2 Exposure controls

· Personal protective equipment:

General protective and hygienic measures: The usual precautionary measures are to be adhered to when handling chemicals.
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.
Avoid contact with the eyes and skin.

Respiratory protection: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure
use self-contained respiratory protective device.

Protection of hands:

Protective gloves

Avoid direct contact with the chemical/ the product/ the preparation by organisational measures.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: ³ 0,7 mm

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

Eye protection:

Tightly sealed goggles

Body protection: Protective work clothing. Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemicalprotection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

General Information | Appearance:

Form:	Fluid
Color:	Yellowish
Odour:	Amine-like
Odour threshold:	Not determined.
PH-value at 20 °C:	11.5
Change in condition	
Melting point/freezing point:	in °C
Initial boiling point and boiling range:	>200 °C
Flash point:	98 °C
Flammability (solid, gas):	Not applicable.
Ignition temperature:	300 °C
Decomposition temperature:	Not determined.
Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	1.2 Vol %
Upper:	13.0 Vol %
Vapour pressure at 20 °C:	Not determined.
Density at 20 °C:	1.01 g/cm³
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with	
water:	Not miscible or difficult to mix.
aromatic hydrocarbons:	Not miscible or difficult to mix.
organic solvents:	Not miscible or difficult to mix.
Partition coefficient: n-octanol/water:	Not determined.
Viscosity:	
Dynamic at 20 °C:	300 mPas
Kinematic:	Not determined.
Solvent content:	
Organic solvents:	100,0%
9.2 Other information	No further relevant information available.

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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: Reacts with acids.

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: No dangerous decomposition products known.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity: Harmful if swallowed, in contact with skin or if inhaled.

LD/LC50 values relevant for classification:
100-51-6 Benzyl alcohol
Oral LD50 1,610 mg/kg (rat)
Dermal LD50 2,000 mg/kg (rabbit)

2855-13-2 3-Aminomethyl-3,5,5-trimethyl-cyclohexylamin

Oral LD50 1,030 mg/kg (rat)
Dermal LD50 >2000 mg/kg (rabbit)

Primary irritant effect:

Skin corrosion/irritation: Causes severe skin burns and eye damage.

Serious eye damage/irritation: Causes serious eye damage.

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

CMR effects (carcinogenity, 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.

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SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity: **100-51-6 Benzyl alcohol**
LC50/96h 460 mg/l (Pimephales promelas (fathead minnow)
EC50/48h 230 mg/l (Daphnia magna (Big water flea)
EC50/72h 770 mg/l (Algae) as IC50 value

2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

EC50/48h	23 mg/l (Daphnia magna (Big water flea)
LC50/96h	110 mg/l (Brachydanio rerio (zebra-fish)
EC50/72h	37 mg/l (Scenedesmus subspicatus)

12.2 Persistence and degradability

Persistence and degradability: No further relevant information available.

12.3 Bioaccumulative potential

Bioaccumulative potential: No further relevant information available.

12.4 Mobility in soil

Mobility in soil: No further relevant information available.

Ecotoxical effects:

Remark: Harmful to fish

Additional ecological information: Water hazard class 2 (German Regulation) (Self-assessment): hazardous for wate. Do not allow product to reach ground water, water course or sewage system. Must not reach sewage water or drainage ditch undiluted or unneutralised. Danger to drinking water if even small quantities leak into the ground. Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

General notes:

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.

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SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Chemicals must be disposed of in compliance with the respective national regulations.
Recommendation: Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Uncleaned packaging: Emty containers should be at state of the art emptied as far as possible before disposal.
Recommendation: Disposal must be made according to official regulations.

SECTION 14. TRANSPORT INFORMATION

14.1 UN-Number

ADR, IMDG, IATA: UN2735

14.2 UN proper shipping name

ADR: 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (Formaldehyde, polymer with N-(3-aminopropyl)-1,3-propanediamine, ISOPHORONEDIAMINE)
IMDG, IATA: AMINES, LIQUID, CORROSIVE, N.O.S. (Formaldehyde, polymer with N-(3-aminopropyl)-1,3-propanediamine, ISOPHORONEDIAMINE)

14.3 Transport hazard class(es)

ADR, IMDG, IATA:

Class: 8 Corrosive substances.

Label: 8

14.4 Packing group

ADR, IMDG, IATA III

14.5 Environmental hazards

Marine pollutant: No

14.6 Special precautions for user

Warning: Corrosive substances.

Danger code (Kemler): 80

EMS Number: F-A,S-B

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:	E

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":	UN 2289 ISOPHORONEDIAMINE SOLUTION, 8, III

SECTION 15. REGULATORY INFORMATION

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

Labelling according to Regulation (EC) No 1272/2008
The product is classified and labelled according to the CLP regulation.

Hazard pictograms

GHS05 GHS07
Signal word: Danger

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.

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SECTION 16. 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

H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H332 Harmful if inhaled.
H412 Harmful 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
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· *** Data compared to the previous version altered.**