COLOR BERRY®

complication date: 06.10.2020
Revision No.: 1

SAFETY DATA SHEET

GEODE RESIN / RESIN

according to Reg. (EU) No 453/2010

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 GEODE RESIN - RESIN

Product code: GEODE RESIN

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

Identified uses: Used in applications such as: Adhesives. Casting. Painting. Tooling. Civil engineering. Composites. Potting and encapsulation. Decoupage coating.

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
(office hours only)

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008:
Skin irritation - Category 2 - H315
Eye irritation - Category 2 - H319
Skin sensitisation - Category 1 - H317
Chronic aquatic toxicity - Category 2 - H411

Most important adverse effects: Causes skin irritation.May cause an allergic skin reaction. Causes serious eye irritation. Toxic to aquatic life with long lasting effects.

2.2 Label elements

Hazard statements:
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.

Hazard pictograms:
GHS07: Exclamation mark
GHS09: Environmental

Singanl word: Warning

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.
P332+P313 If skin irritation or rash occurs: Get medical advice/ attention.
P337+P313 If eye irritation persists: Get medical advice/ attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P501: Dispose of contents / container to a collection point for hazardous waste in accordance with local, regional, national and / or international regulations.

2.2 Other hazards

PBT: This Product is not identified as a PBT / vPvB substance.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

This Product is a mixture

Reaction product: Bisphenol F- (epichlorohydrin); epoxy resin

EINECS	CAS	PBT / WEL	CLP classification	prozent
500-006-8	9003-36-5	-	Skin Irrit. - 2 - H315 Skin Sens. - 1A - H317 Aquatic Chronic - 2 - H411	>49 %

Reaction product: bisphenol-A- (epichlorhydrin) epoxy resin (number average molecular weight <= 700)

500-033-5	5068-38-6	-	Skin Irrit. - 2 - H315 Eye Irrit. - 2 - H319 Skin Sens. - 1B - H317 Aquatic Chronic - 2 - H411	>49 %

Ethyl 4-[[(methylphenylamino)methylene]amino]benzoate

260-976-0	57834-33-0	-	Acute Tox.- 4 - H302 Stor RE - 2 - H373 Aquatic Chronic - 2 - H411	<= 0.5 %

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection)

Inhalation: Move person to fresh air; if effects occur, consult a physician.

Skin contact: Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands.

Eye contact: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist. Suitable emergency eye wash facility should be available in work area.

Ingestion: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

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

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective. Water fog, applied gently may be used as a blanket for fire extinguishment.

Unsuitable extinguishing media: Do not use direct water stream. May spread fire.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products: In combustion emits toxic fumes

5.3 Advice for firefighters

Fire Fighting Procedures: Wear self-contained breathing apparatus. Wear protective cloth to prevent contact with skin and eyes.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Personal precautions: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection. Refer to section 7, Handling, for additional precautionary measures.

6.2 Environmental precautions:

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

6.3 Methods and materials for containment and cleaning up:

Clean-up prodecures: Absorb with materials such as: Sand. Polypropylene fiber products. Polyethylene fiber products. Collect in suitable and properly labeled containers.

6.4 Reference to other sections

Reference to other sections: References to other sections, if applicable, have been provided in the previous sub-sections

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling:

Handling requirements: Avoid prolonged or repeated contact with skin. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Avoid use of electric band heaters.

7.2 Conditions for safe storage, including any incompatibilities:

Storage conditions: Store in a cool, well ventilated area / room. Keep container tightly closed. The floor of the storage room must be impermeable to prevent the escape of liquids.

7.3 Specific end use(s):

Specific end use(s): See the technical data sheet on this product for further information.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure limits are listed below, if they exist. Exposure limits have not been established for those substances listed in the composition, if any have been disclosed.

8.2 Exposure controls

Engineering controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines.

Eye/face protection: Use safety glasses (with side shields). Safety glasses (with side shields) should be consistent with EN 166 or equivalent.

Hand protection: Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms.

Skin protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions, no respiratory protection should be needed; however, if handling at elevated temperatures without sufficient ventilation, use an approved air-purifying respirator. Use the following CE approved air-purifying respirator: Organic vapor cartridge, type A (boiling point >65 ºC).

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties Appearance

Physical state: Liquid

Color: Clear

Odor: Mild

Boiling point (760 mmHg): > 100 °C Literature

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity:

Reactivity: no data available

10.2 Chemical stability:

Chemical stability: Stable under recommended storage conditions. See Storage, Section 7.

10.3 Possibility of hazardous reactions:

Possibility of hazardous reactions: Will not occur by itself. Masses of more than one pound (0.5 kg) of product plus an aliphatic amine will cause irreversible polymerization with considerable heat build-up.

10.4 Conditions to avoid:

Conditions to avoid: Avoid short term exposures to temperatures above 300 °C
Potentially violent decomposition can occur above 350 °C
Avoid prolonged exposure to temperatures above 250 °C
Generation of gas during decomposition can cause pressure in closed systems. Pressure build-up can be rapid.

10.5 Incompatible materials:

Incompatible materials: Avoid contact with oxidizing materials. Avoid contact with: Acids. Bases. Avoid unintended contact with amines.

10.6 Hazardous decomposition products:

Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials. Gases are released during decomposition. Uncontrolled exothermic reaction of epoxy resins release phenolics, carbon monoxide, and water.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
Acute oral toxicity : Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. As product: Single dose oral LD50 has not been determined.

Acute dermal toxicity: Prolonged skin contact is unlikely to result in absorption of harmful amounts.
As product: The dermal LD50 has not been determined. Based on information for component(s):Based on information for component(s): LD50, RBT, > 2,000 mg/kg Estimated.

Acute inhalation toxicity: At room temperature, exposure to vapor is minimal due to low volatility; vapor from heated material may cause respiratory irritation.
As product: The LC50 has not been determined.

Skin corrosion/irritation: Brief contact may cause moderate skin irritation with local redness.
Repeated contact may cause moderate skin irritation with local redness.
May cause more severe response if skin is abraded (scratched or cut).

Serious eye damage/eye irritation: May cause eye irritation.
Corneal injury is unlikely.

11.2 COMPONENTS INFLUENCING TOXICOLOGY

Reaction product: **Bisphenol F-(epichlorohydrin); epoxy resin**
Acute oral toxicity
LD50,
RAT, > 2,000 mg/kg OECD 401 or equivalent no deaths occurred at this concentration.
Acute inhalation toxicity
The LC50 has not been determined.

Reaction product: **Bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)**
Acute oral toxicity
LD50, RAT, > 15,000 mg/kg
Acute inhalation toxicity
The LC50 has not been determined.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

Ecotoxicity values: No data available

12.2 Persistence and degradability

Persistence and degradability: No Biodegradation

12.3 Bioaccumulative potential

Bioaccumulative potential: Bioaccummulation potential

12.4 Mobility in soil

Mobility in soil: Potential for mobility in soil

12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

12.6 Other adverse effects

Other adverse effects: This substance is not in Annex I of Regulation (EC) No 1005/2009 on substances that deplete the ozone layer.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

This product, when being disposed of in its unused and uncontaminated state should be treated as a hazardous waste according to EC Directive 2008/98/EC. Any disposal practices must be in compliance with all national and provincial laws and any municipal or local by-laws governing hazardous waste. For used, contaminated and residual materials additional evaluations may be required. Do not dump into any sewers, on the ground, or into any body of water. The definitive assignment of this material to the appropriate EWC group and thus its proper EWC code will depend on the use that is made of this material. Contact the authorized waste disposal services.

SECTION 14. TRANSPORT INFORMATION

UN number: UN 3082

UN proper shipping name: Environmentally hazardous substance, liquid, n.o.s.(Epoxy resin)

Transport hazard class(es): 9

Packing group: III

Environmentally hazardous: Not applicable

Special precautions for user: No special precautions
Tunnelcode: E
Transport category: 3

Transport in bulk according to Annex II of Marpol and the IBC Code: Consult IMO regulations before transporting ocean bulk

SECTION 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
REACH Regulation (EC) No 1907/2006

This product contains only components that have been either pre-registered, registered, are exempt from registration, are regarded as registered or are not subject to registration according to Regulation (EC) No. 1907/2006 (REACH)., The aforementioned indications of the REACH registration status are provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. It is the buyer´s/user´s responsibility to ensure that his/her understanding of the regulatory status of this product is correct**.**

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

Listed in Regulation: ENVIRONMENTAL HAZARDS

Number in Regulation: E2

Remarks:

Reaction product: Bisphenol A-(epichlorohydrin); epoxy resin (number average molecular weight <= 700) can also be described by the CAS# 025085-99-8.

15.2 Chemical Safety Assessment

Chemical Safety Assessments have been carried out for these substances.

SECTION 16. OTHER INFORMATION

16.1 OTHER INFORMATION

Other Information: This safety data sheet is prepared in accordance with Commission Regulation (EU) no. 2015/830.

Phrases used on page 1:
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.

Legal disclamer: The above information is believed to be correct but does not purpot to be inclusive ans shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

COLOR BERRY®

complication date: 06.10.2020
Revision date: 23.12.2020
Revision No.: 2

SAFETY DATA SHEET

GEODE RESIN / HARDENER

according to Reg. (EU) No 453/2010

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 GEODE RESIN - HARDENER

Product code: GEODE RESIN

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

Identified uses: Used in applications such as: 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
(office hours only)

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008: Acute Toxicity - Category 4 - Oral - H302
Skin corrosion - Category 1B - H314
Skin sensitisation - Category 1 - H317
Chronic aquatic toxicity - Category 3 - H412

Most important adverse effects: Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Harmful to aquatic life with long lasting effects.

2.2 Label elements

Hazard statements:
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
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.

Hazard pictograms:
GHS07: Exclamation mark
GHS05: Corrosion
GHS09: Environmental hazard

Signal word: DANGER

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.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
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 to a collection point for hazardous waste in accordance with local, regional, national and / or international regulations.

2.2 Other hazards

PBT: This Product is not identified as a PBT / vPvB substance.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

This Product is a mixture

Propylidynetrimethanol, propoxylated, reaction products with ammonia

EINECS	CAS	PBT / WEL	CLP classification	prozent

500-105-6	39423-51-3	-	Acute Tox. - 4 - H302 Acute Tox. - 4 - H312 Eye Dam. - 1 - H318 Aquatic Chronic - 2 - H411	>= 65 - <= 75

benzyl alcohol

202-859-9	100-51-6	-	Acute Tox. - 4 - H302 Acute Tox. - 4 - H332	>= 10 - <= 15

2-Piperazin-1-ylethylamine

205-411-0	140-31-8	-	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Corr. 1B; H314 Skin Sens. 1; H317 Aquatic Chronic 3; H412	>=1 - <= 5

Reaction product: bisphenol-A- (epichlorhydrin) epoxy resin (number average molecular weight <= 700)

500-033-5	5068-38-6	-	Skin Irrit. - 2 - H315 Eye Irrit. - 2 - H319 Skin Sens. - 1B - H317 Aquatic Chronic - 2 - H411	>=10 - <= 20

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air. If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

Skin contact: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing. Seek medical attention if symptoms occur or irritation persists. Wash clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands. Suitable emergency safety shower facility should be immediately available.

Eye contact: Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

Ingestion: Do not induce vomiting. Give one cup (8 ounces or 240 ml) of water or milk if available and transport to a medical facility. Do not give anything by mouth unless the person is fully conscious.

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

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician: Maintain adequate ventilation and oxygenation of the patient. Chemical eye burns may require extended irrigation. Obtain prompt consultation, preferably from an ophthalmologist. If burn is present, treat as any thermal burn, after decontamination. Due to irritant properties, swallowing may result in burns/ulceration of mouth, stomach and lower gastrointestinal tract with subsequent stricture. Aspiration of vomitus may cause lung injury. Suggest endotracheal/esophageal control if lavage is done. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective. Water fog, applied gently may be used as a blanket for fire extinguishment.

Unsuitable extinguishing media: Do not use direct water stream. May spread fire.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Nitrogen oxides. Carbon monoxide. Carbon dioxide.

Unusual Fire and Explosion Hazards: Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

5.3 Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this SDS.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Personal precautions: Evacuate area. Only trained and properly protected personnel must be involved in clean-up operations. Keep upwind of spill. Ventilate area of leak or spill. Refer to section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

6.2 Environmental precautions:

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

6.3 Methods and materials for containment and cleaning up:

Clean-up prodecures: Contain spilled material if possible. Absorb with materials such as: Sand. Collect in suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

6.4 Reference to other sections

Reference to other sections: References to other sections, if applicable, have been provided in the previous sub-sections

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling:

Handling requirements: Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated contact with skin. Avoid breathing vapor. Do not swallow. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling. Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

7.2 Conditions for safe storage, including any incompatibilities:

Storage conditions: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep in properly labelled containers.
Storage temperature: +5···+ 30 °C

7.3 Specific end use(s):

Specific end use(s): See the technical data sheet on this product for further information.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure limits are listed below, if they exist. Exposure limits have not been established for those substances listed in the composition, if any have been disclosed.

Component	Regulation	Type of listing	Value/Notation
benzyl alcohol	US WEEL TWA		10 ppm

8.2 Exposure controls

Engineering controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Eye/face protection: Use chemical goggles. Chemical goggles should be consistent with EN 166 or equivalent. If exposure causes eye discomfort, use a full-face respirator.

Hand protection: Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Chlorinated polyethylene. Natural rubber ("latex"). Neoprene. Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Butyl rubber. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl alcohol ("PVA"). Polyvinyl chloride ("PVC" or "vinyl"). Viton. When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended.

Skin protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions, no respiratory protection should be needed; however, if handling at elevated temperatures without sufficient ventilation, use an approved air-purifying respirator. Use the following CE approved air-purifying respirator: Organic vapor cartridge, type A (boiling point >65 ºC).

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties Appearance

Physical state: Liquid

Color: Clear

Odor: Amine

Boiling point (760 mmHg): > 200 °C Literature

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity:

Reactivity: no data available

10.2 Chemical stability:

Chemical stability: Stable under recommended storage conditions. See Storage, Section 7.

10.3 Possibility of hazardous reactions:

Possibility of hazardous reactions: Polymerization will not occur.

10.4 Conditions to avoid:

Conditions to avoid: Avoid short term exposures to temperatures above 300 °C
Potentially violent decomposition can occur above 350 °C
Avoid prolonged exposure to temperatures above 250 °C
Generation of gas during decomposition can cause pressure in closed systems. Pressure build-up can be rapid.

10.5 Incompatible materials:

Incompatible materials: Avoid contact with oxidizing materials. Avoid contact with: Acids. Acrylates. Alcohols. Aldehydes. Halogenated hydrocarbons. Ketones.

Nitrites. Avoid contact with metals such as: Brass. Bronze. Copper. Copper alloys.

10.6 Hazardous decomposition products:

Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Aromatic compounds. Ammonia. Volatile amines. Hydrocarbons. Phenolics.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
Acute oral toxicity : Low toxicity if swallowed. Swallowing may result in gastrointestinal irritation or ulceration. Swallowing may result in burns of the mouth and throat. As product: Single dose oral LD50 has not been determined. For the component(s) tested: LD50, Rat, 500 mg/kg Estimated.

Acute dermal toxicity: Prolonged skin contact is unlikely to result in absorption of harmful amounts. As product: The dermal LD50 has not been determined. Based on information for component(s): LD50, RBT, > 2,000 mg/kg Estimated.

Acute inhalation toxicity: Excessive exposure may cause irritation to upper respiratory tract (nose and throat). May cause central nervous system depression. Symptoms may include headache, dizziness and drowsiness, progressing to incoordination and unconsciousness.
The LC50 has not been determined.

Skin corrosion/irritation: Brief contact may cause skin burns. Symptoms may include pain, severe local redness and tissue damage.

Serious eye damage/eye irritation: May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur. Vapor may cause lacrimation (tears).

Sensitization A component in this mixture has caused allergic skin reactions in humans. Contains component(s) which have caused allergic skin sensitization in guinea pigs. For respiratory sensitization: No relevant data found.

11.2 COMPONENTS INFLUENCING TOXICOLOGY

Propylidynetrimethanol, propoxylated, reaction products with ammonia
Acute inhalation toxicity
The LC50 has not been determined

benzyl alcohol
Acute inhalation toxicity
LC50, Rat, 4 Hour, vapour, 11 mg/l

2-Piperazin-1-ylethylamine
Acute inhalation toxicity
LC50, Rat, 4 Hour, dust/mist, > 5.01 mg/l

Reaction product: bisphenol-A- (epichlorhydrin) epoxy resin (number average molecular weight <= 700)
Acute inhalation toxicity
The LC50 has not been determined

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

Ecotoxicity values: No data available

12.2 Persistence and degradability

Persistence and degradability: No Biodegradation

12.3 Bioaccumulative potential

Bioaccumulative potential: Bioaccummulation potential

12.4 Mobility in soil

Mobility in soil: Potential for mobility in soil

12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

12.6 Other adverse effects

Other adverse effects: This substance is not in Annex I of Regulation (EC) No 1005/2009 on substances that deplete the ozone layer.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

This product, when being disposed of in its unused and uncontaminated state should be treated as a hazardous waste according to EC Directive 2008/98/EC. Any disposal practices must be in compliance with all national and provincial laws and any municipal or local by-laws governing hazardous waste. For used, contaminated and residual materials additional evaluations may be required. Do not dump into any sewers, on the ground, or into any body of water. The definitive assignment of this material to the appropriate EWC group and thus its proper EWC code will depend on the use that is made of this material. Contact the authorized waste disposal services.

SECTION 14. TRANSPORT INFORMATION

UN number: UN 3082

UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TRIMETHYLOLPROPANE POLYOXYPROPYLENE TRIAMINE)

Transport hazard class(es): 9

Packing group: III

Environmentally hazardous: Not applicable

Special precautions for user: Not considered environmentally hazardous based on available data

Transport in bulk according to Annex II of Marpol and the IBC Code:	Consult IMO regulations before transporting ocean bulk

SECTION 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture REACH Regulation (EC) No 1907/2006

This product contains only components that have been either pre-registered, registered, are exempt from registration, are regarded as registered or are not subject to registration according to Regulation (EC) No. 1907/2006 (REACH)., The aforementioned indications of the REACH registration status are provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. It is the buyer´s/user´s responsibility to ensure that his/her understanding of the regulatory status of this product is correct.

15.2 Chemical Safety Assessment

Chemical Safety Assessments have been carried out for these substances.

SECTION 16. OTHER INFORMATION

16.1 OTHER INFORMATION

Other Information:	This safety data sheet is prepared in accordance with Commission Regulation (EU) no. 2015/830.
Phrases used on page 1:	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.
Legal disclamer:	The above information is believed to be correct but does not purpot to be inclusive ans shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.