

## Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 01/04/2018

Reviewed on 12/20/2017

### 1 Identification

- **Product Identifier**
- **Trade name: Greenlight Marine Grade Resin**
- **CAS Number:**  
25068-38-6
- **NLP Number:**  
500-033-5
- **Index number:**  
603-074-00-8
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product Description** Laminating Resin
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**  
Greenlight Surf Co. LLC  
187 Parker Ave  
Manasquan, NJ 08736  
info@greenlightsurfsupply.com
- **Emergency telephone number:** Chemtrec 800-424-9300

### 2 Hazard(s) Identification

- **Classification of the substance or mixture:**



GHS09 Environment

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



GHS07

Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2A H319 Causes serious eye irritation.  
Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements:**
- **GHS label elements**  
The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**



GHS07



GHS09

- **Signal word:** Warning
- **Hazard-determining components of labeling:**  
Epoxy resin
- **Hazard statements:**  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.

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**Trade Name: Greenlight Marine Grade Resin**

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/vapors/spray.
- P264 Wash thoroughly after handling.
- P272 Contaminated work clothing must not be allowed out of the workplace.
- P273 Avoid release to the environment.
- P280 Wear protective gloves.
- P302+P352 If on skin: Wash with plenty of water.
- P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P332+P313 If skin irritation occurs: Get medical advice/attention.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P362 Take off contaminated clothing.
- P391 Collect spillage.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Unknown acute toxicity:**

This value refers to knowledge of known, established toxicological or ecotoxicological values.

0 % of the mixture consists of component(s) of unknown toxicity.

**Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme**NFPA ratings (scale 0 - 4)****HMIS-ratings (scale 0 - 4)**

HEALTH	2	Health = 2
FIRE	1	Fire = 1
REACTIVITY	0	Physical Hazard = 0

**Hazard(s) not otherwise classified (HNOC):** None known**3 Composition/Information on Ingredients****Chemical characterization:** Substance**CAS No. Description**

25068-38-6 Epoxy resin 100%

**Identification number(s)****NLP Number:** 500-033-5**Index number:** 603-074-00-8**4 First-Aid Measures****Description of first aid measures:****After inhalation:** Move person to fresh air. Get medical attention if symptoms develop.**After skin contact:**

Drench the affected area immediately with plenty of water; remove contaminated clothing. Wash thoroughly with soap and water for at least 15 minutes. Seek medical attention if irritation, rash or other adverse effects occur.

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### Trade Name: Greenlight Marine Grade Resin

- **After eye contact:**  
Bathe the eye with running water for at least 15 minutes, lifting upper and lower eyelids. Get medical attention if symptoms persist.
- **After swallowing:**  
DO NOT induce vomiting; rinse mouth then drink plenty of water; get medical attention if symptoms persist.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed:** Skin irritation, allergic reactions.
- **Indication of any immediate medical attention and special treatment needed:**  
No further relevant information available.

### 5 Fire-Fighting Measures

- **Extinguishing media:**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, sand, dry chemical, water mist or alcohol resistant foam.  
Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture:** No further relevant information available.
- **Advice for firefighters:**
- **Protective equipment:**  
As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

### 6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:**  
Isolate area; ensure adequate ventilation; use appropriate personal protection equipment; avoid breathing mist, vapors, spray; avoid contact with skin, eyes and clothing; keep unnecessary and unprotected personnel from entering the involved area.
- **Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/surface or ground water.
- **Methods and material for containment and cleaning up:**  
Dispose of the collected material according to regulations.
- **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.
- **Protective Action Criteria for Chemicals**

• <b>PAC-1:</b>	90 mg/m <sup>3</sup>
• <b>PAC-2:</b>	990 mg/m <sup>3</sup>
• <b>PAC-3:</b>	5,900 mg/m <sup>3</sup>

### 7 Handling and Storage

- **Handling**
- **Precautions for safe handling:** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.

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**Trade Name: Greenlight Marine Grade Resin****Conditions for safe storage, including any incompatibilities:****Storage****Requirements to be met by storerooms and receptacles:**

Store in a cool, dry, well-ventilated place. Keep away from incompatible materials. Keep container tightly closed. Recommended storage temperature: 10-35 °C (50-95 °F).

**Information about storage in one common storage facility:** Not required.**Further information about storage conditions:** Keep receptacle tightly sealed.**Specific end use(s):** No further relevant information available.**8 Exposure Controls/Personal Protection****Additional information about design of technical systems:** No further data; see section 7.**Control parameters:****Components with occupational exposure limits:****25068-38-6 Epoxy resin**

STEL	Short-term value: 5 mg/m <sup>3</sup> Long-term value: 10 mg/m <sup>3</sup>
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**Additional information:** The lists that were valid during the creation of this SDS were used as basis.**Exposure controls:****Personal protective equipment:****General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing and wash before reuse.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

**Breathing equipment:** Not necessary under normal conditions.**Protection of hands:**

Protective gloves

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

Select glove material based on penetration times, rates of diffusion and 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.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Wear nitrile rubber, nitrile, neoprene, PVC or other suitable impervious gloves.

**Penetration time of glove material:**

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

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**Trade Name: Greenlight Marine Grade Resin**

• **Eye protection:**



Safety glasses with side shields

• **Limitation and supervision of exposure into the environment:**

Keep away from drains, surface and ground waters.  
Avoid release into the environment.

### 9 Physical and Chemical Properties

• **Information on basic physical and chemical properties**

• **General Information**

• **Appearance:**

Form:

Liquid

Color:

Light yellow

• **Odor:**

Epoxy

• **Odor threshold:**

Not determined.

• **pH-value:**

7

• **Change in condition**

Melting point/Melting range:

Not determined.

Boiling point/Boiling range:

>260 °C (>500 °F)

• **Flash point:**

252 °C (485.6 °F)

• **Flammability (solid, gaseous):**

Product is not flammable.

• **Ignition temperature:**

Not applicable

• **Decomposition temperature:**

Not determined.

• **Auto igniting:**

>300° C

• **Danger of explosion:**

Product does not present an explosion hazard.

• **Explosion limits:**

Lower:

Not determined.

Upper:

Not determined.

• **Vapor pressure:**

Not applicable.

• **Density @ 20 °C (68 °F):**

1.16 g/cm<sup>3</sup> (9.68 lbs/gal)

• **Relative density:**

Not determined.

• **Vapor density:**

Not applicable.

• **Evaporation rate:**

Not applicable.

• **Solubility in / Miscibility with:**

Water:

Insoluble.

• **Partition coefficient (n-octanol/water):** Not determined.

• **Viscosity:**

Dynamic @ 20 °C (68 °F):

11,000-14,500 mPas

Kinematic:

Not applicable.

• **Other information:**

No further relevant information available.

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**Trade Name: Greenlight Marine Grade Resin**

### 10 Stability and Reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:**  
Stable under normal use and storage conditions. Upon prolonged storage the material may crystallize which is a reversible condition; crystallized material can be liquefied back by heating slowly to 50° C for 6-24 hours.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:**  
Masses of more than one pound (0.5 kg) product plus an aliphatic amine will cause irreversible polymerization with considerable heat build-up. Material will polymerize in contact with Sodium hydroxide.
- **Conditions to avoid:** Avoid elevated temperatures; potentially violent decomposition can occur above 350°C.
- **Incompatible materials:** Strong oxidizing agents, acids, alkalis, amines, mercaptans.
- **Hazardous decomposition products:**  
Uncontrolled exothermic reaction of epoxy resin releases carbon monoxide, carbon dioxide, phenolics.

### 11 Toxicological Information

- **Information on toxicological effects:**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**

**25068-38-6 Epoxy resin**

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

- **Primary irritant effect:**
- **On the skin:**  
Irritant to skin and mucous membranes.  
May cause an allergic skin reaction.
- **On the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**

- **Carcinogenic categories:**

- **IARC (International Agency for Research on Cancer):**

Substance is not listed.

- **NTP (National Toxicology Program):**

Substance is not listed.

- **OSHA-Ca (Occupational Safety & Health Administration):**

Substance is not listed.

### 12 Ecological Information

- **Toxicity:**
- **Aquatic toxicity:**  
Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.

**25068-38-6 Epoxy resin**

EC50	3.6 mg/l (Daphnia)
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- **Persistence and degradability:** No further relevant information available.

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**Trade Name: Greenlight Marine Grade Resin**

- **Behavior in environmental systems:**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**  
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.  
Poisonous for fish and plankton in water bodies.  
Toxic for aquatic organisms
- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

### 13 Disposal Considerations

- **Waste treatment methods:**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.  
Observe all federal, state and local environmental regulations when disposing of this material.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport Information

- **UN-Number:** UN3082
- **DOT, ADR/ADN, IMDG, IATA**
- **UN proper shipping name:** Environmentally hazardous substances, liquid, n.o.s. (Epoxy resin)
- **DOT**
- **ADR/ADN** UN3082 Environmentally hazardous substances, liquid, n.o.s. (Epoxy resin)
- **IMDG** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin), MARINE POLLUTANT
- **IATA** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)
- **Transport hazard class(es):**
- **DOT, IMDG, IATA**



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

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**Trade Name: Greenlight Marine Grade Resin**

• <b>Label:</b>	9
<hr/>	
• <b>ADR/ADN</b>	
	
• <b>Class:</b>	9 (M6) Miscellaneous dangerous substances and articles
• <b>Label:</b>	9
• <b>Packing group:</b>	
• <b>DOT, ADR/ADN, IMDG, IATA</b>	III
• <b>Environmental hazards:</b>	
• <b>Special marking (ADR/ADN):</b>	Symbol (fish and tree)
• <b>Special marking (IATA):</b>	Symbol (fish and tree)
• <b>Special precautions for user:</b>	Warning: Miscellaneous dangerous substances and articles
• <b>Danger code (Kemler):</b>	90
• <b>EMS Number:</b>	F-A,S-F
• <b>Stowage Category</b>	A
• <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:</b>	Not applicable.
• <b>Transport/Additional information:</b>	
• <b>DOT</b>	
• <b>Quantity limitations:</b>	On passenger aircraft/rail: No limit On cargo aircraft only: No limit
• <b>Remarks:</b>	Special marking with the symbol (fish and tree).
<hr/>	
• <b>ADR/ADN</b>	
• <b>Excepted quantities (EQ):</b>	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
<hr/>	
• <b>IMDG</b>	
• <b>Limited quantities (LQ):</b>	5L
• <b>Excepted quantities (EQ):</b>	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
• <b>UN "Model Regulation":</b>	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (EPOXY RESIN), 9, III

### 15 Regulatory Information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
- **SARA (Superfund Amendments and Reauthorization):**

• **Section 355 (extremely hazardous substances):**

Substance is not listed.

• **Section 313 (Specific toxic chemical listings):**

Substance is not listed.

• **TSCA (Toxic Substances Control Act):**

Substance is listed.

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**Trade Name: Greenlight Marine Grade Resin**

• **California Proposition 65:**

• **Chemicals known to cause cancer:**

Substance is not listed.

• **Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

• **Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

• **Chemicals known to cause developmental toxicity:**

Substance is not listed.

• **New Jersey Right-to-Know List:**

Substance is not listed.

• **New Jersey Special Hazardous Substance List:**

Substance is not listed.

• **Pennsylvania Right-to-Know List:**

Substance is not listed.

• **Pennsylvania Special Hazardous Substance List:**

Substance is not listed.

• **Carcinogenic categories:**

• **EPA (Environmental Protection Agency):**

Substance is not listed.

• **TLV (Threshold Limit Value established by ACGIH):**

Substance is not listed.

• **NIOSH-Ca (National Institute for Occupational Safety and Health):**

Substance is not listed.

• **GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

• **Hazard pictograms:**



GHS07    GHS09

• **Signal word:** Warning

• **Hazard-determining components of labeling:**

Epoxy resin

• **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/vapors/spray.
- P264                      Wash thoroughly after handling.

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**Trade Name: Greenlight Marine Grade Resin**

P272	Contaminated work clothing must not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves.
P302+P352	If on skin: Wash with plenty of water.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362	Take off contaminated clothing.
P391	Collect spillage.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

**• National regulations:**

Non-Regulated Material

**• Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**16 Other Information**

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

**• Date of preparation / last revision:** 01/04/2018 / 1**• Abbreviations and acronyms:**

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road  
ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
ACGIH: American Conference of Governmental Industrial Hygienists  
EINECS: European Inventory of Existing Commercial Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
NFPA: National Fire Protection Association (USA)  
HMIS: Hazardous Materials Identification System (USA)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
NIOSH: National Institute for Occupational Safety and Health  
OSHA: Occupational Safety & Health Administration  
TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A  
Skin Sens. 1: Skin sensitisation – Category 1  
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

**• \* Data compared to the previous version altered.**SDS created by MSDS Authoring Services [www.msdsauthoring.com](http://www.msdsauthoring.com) +1-877-204-9106

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OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

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### 1 Identification

- **Product Identifier**
- **Trade name: Part B Hardener**
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product Description** Laminating Resin
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**  
Greenlight Surf Co. LLC  
187 Parker Ave  
Manasquan, NJ 08736  
info@greenlightsurfsupply.com
- **Emergency telephone number:** Chemtrec 800-424-9300

### 2 Hazard(s) Identification

- **Classification of the substance or mixture:**



GHS05 Corrosion

Skin Corr. 1A     H314 Causes severe skin burns and eye damage.



GHS09 Environment

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



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.

- **Label elements:**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms:**



GHS05



GHS07



GHS09

- **Signal word:** Danger

- **Hazard-determining components of labeling:**

Benzyl alcohol  
Epoxy polyamine adduct  
3-aminomethyl-3,5,5-trimethylcyclohexylamine  
1,3-Cyclohexanedimethanamine

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**Trade name: Part B Hardener**

**• 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.
- H411 Toxic to aquatic life with long lasting effects.

**• Precautionary statements:**

- P260 Do not breathe mist/vapours/spray.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P272 Contaminated work clothing must not be allowed out of the workplace.
- P273 Avoid release to the environment.
- P280 Wear protective gloves / eye protection / face protection.
- P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P312 Call a poison center if you feel unwell.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P362 Take off contaminated clothing.
- P363 Wash contaminated clothing before reuse.
- P391 Collect spillage.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**• Unknown acute toxicity:**

This value refers to knowledge of known, established toxicological or ecotoxicological values. 50 % of the mixture consists of component(s) of unknown toxicity.

**• Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

**• NFPA ratings (scale 0 - 4)**



**• HMIS-ratings (scale 0 - 4)**

HEALTH	3	Health = *3
FIRE	1	Fire = 1
REACTIVITY	0	Physical Hazard = 0

**• Hazard(s) not otherwise classified (HNOC):** None known

### 3 Composition/Information on Ingredients

**• Description:** Mixture of substances listed below with non-hazardous additions.

**• Dangerous Components:**

CAS: 100-51-6	Benzyl alcohol	25-50%
RTECS: DN 3150000	⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	

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**Trade name: Part B Hardener**

	Epoxy polyamine adduct ⚠ Skin Corr. 1C, H314; Eye Dam. 1, H318	≥15-≤50%
CAS: 2579-20-6	1,3-Cyclohexanedimethanamine ⚠ Acute Tox. 3, H301	15-35%
CAS: 2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine ⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412	15-35%
CAS: 9046-10-0	Poly(propylene glycol) bis(2-aminopropyl ether) ⚠ Skin Corr. 1A, H314; Eye Dam. 1, H318; Aquatic Acute 3, H402; Aquatic Chronic 3, H412	≥2-≤10%

**Additional information:**

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

### 4 First-Aid Measures

**Description of first aid measures:**
**General information:**

Symptoms of poisoning may occur after exposure to dust, fumes or particulates; seek medical attention if feeling unwell.

**After inhalation:**

Move person to fresh air and keep at rest in a position comfortable for breathing; if breathing is irregular, provide artificial respiration; if there are breathing difficulties, administer oxygen; get medical attention.

**After skin contact:**

Rinse immediately with plenty of water; remove contaminated clothing; wash thoroughly with soap and water for at least 15 minutes. If irritation, rash or other adverse effects develop, get medical attention immediately.

**After eye contact:**

Bathe the eye with running water for at least 15 minutes, lifting upper and lower eyelids. Get medical attention immediately.

**After swallowing:**

Do NOT induce vomiting unless advised by a physician. Rinse out mouth with water. Call nearest Poison Control Center or physician immediately.

**Information for doctor:**

**Most important symptoms and effects, both acute and delayed:** Skin irritation, allergic reactions.

**Indication of any immediate medical attention and special treatment needed:**

No further relevant information available.

### 5 Fire-Fighting Measures

**Extinguishing media:**
**Suitable extinguishing agents:**

CO<sub>2</sub>, sand, dry chemical, water mist or alcohol resistant foam.

Use fire fighting measures that suit the environment.

**Special hazards arising from the substance or mixture:** No further relevant information available.

**Advice for firefighters:**
**Protective equipment:**

Mouth respiratory protective device.

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

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## Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 01/04/2018

Reviewed on 12/20/2017

Trade name: Part B Hardener

### 6 Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures:**

Isolate area; ensure adequate ventilation; use appropriate personal protection equipment; avoid breathing mist, vapors, spray; avoid contact with skin, eyes and clothing; keep unnecessary and unprotected personnel from entering the involved area.

**Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/surface or ground water.

**Methods and material for containment and cleaning up:**

Dispose contaminated material as waste according to section 13.  
Ensure adequate ventilation.  
Dispose of the collected material according to regulations.

**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.

**Protective Action Criteria for Chemicals****PAC-1:**

100-51-6	Benzyl alcohol	30 ppm
9046-10-0	Poly(propylene glycol) bis(2-aminopropyl ether)	4.8 mg/m <sup>3</sup>

**PAC-2:**

100-51-6	Benzyl alcohol	52 ppm
9046-10-0	Poly(propylene glycol) bis(2-aminopropyl ether)	53 mg/m <sup>3</sup>

**PAC-3:**

100-51-6	Benzyl alcohol	740 ppm
9046-10-0	Poly(propylene glycol) bis(2-aminopropyl ether)	320 mg/m <sup>3</sup>

### 7 Handling and Storage

**Handling****Precautions for safe handling:**

Avoid creating and breathing dust/fume/gas/mist/vapors/spray.  
Ensure good ventilation/exhaustion at the workplace.

**Information about protection against explosions and fires:** No special measures required.

**Conditions for safe storage, including any incompatibilities:****Storage****Requirements to be met by storerooms and receptacles:**

Store in a cool, dry, well-ventilated place. Keep away from incompatible materials. Keep container tightly closed. Recommended storage temperature: 10-35 °C (50-95 °F).

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** Keep receptacle tightly sealed.

**Specific end use(s):** No further relevant information available.

### 8 Exposure Controls/Personal Protection

**Additional information about design of technical systems:** No further data; see section 7.

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• **Control parameters:**

• **Components with occupational exposure limits:**

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

<b>100-51-6 Benzyl alcohol</b>
--------------------------------

WEEL   Long-term value: 10 ppm
--------------------------------

• **Additional information:** The lists that were valid during the creation of this SDS were used as basis.

• **Exposure controls:**

• **Personal protective equipment:**

• **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing and wash before reuse.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

• **Breathing equipment:** Not necessary under normal conditions.

• **Protection of hands:**



Protective gloves

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

Select glove material based on penetration times, rates of diffusion and 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.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Wear nitrile rubber, nitrile, neoprene, PVC or other suitable impervious gloves.

• **Penetration time of glove material:**

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

• **Eye protection:**



Safety glasses with side shields

• **Body protection:**



Apron

• **Limitation and supervision of exposure into the environment:**

Keep away from drains, surface and ground waters.

Avoid release into the environment.

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### 9 Physical and Chemical Properties

**Information on basic physical and chemical properties****General Information****Appearance:**

**Form:** Liquid  
**Color:** Clear to amber

**Odor:** Amine-like  
**Odor threshold:** Not determined.

**pH-value @ 20 °C (68 °F):** Alkaline

**Change in condition**

**Melting point/Melting range:** Not determined.  
**Boiling point/Boiling range:** ≥205.4 °C (≥401.7 °F)

**Flash point:** >101 °C (>213.8 °F)

**Flammability (solid, gaseous):** Not determined.

**Ignition temperature:** Not applicable

**Decomposition temperature:** Not determined.

**Danger of explosion:** Product does not present an explosion hazard.

**Explosion limits:**

**Lower:** Not determined.  
**Upper:** Not determined.

**Vapor pressure @ 20 °C (68 °F):** ≤0.1 hPa (≤0.1 mm Hg)

**Density @ 20 °C (68 °F):** 1.01 g/cm<sup>3</sup> (8.428 lbs/gal)

**Relative density:** Not determined.

**Vapor density:** Not applicable.

**Evaporation rate:** Not applicable.

**Solubility in / Miscibility with:**

**Water:** Partially soluble in water.

**Partition coefficient (n-octanol/water):** Not determined.

**Viscosity:**

**Dynamic:** Not applicable.  
**Kinematic:** Not applicable.

**Solvent content:**

**VOC content:** 30-50 %

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

### 10 Stability and Reactivity

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

**Chemical stability:** Stable under normal conditions.

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

**Possibility of hazardous reactions:**

Mixtures with strongly acidic and strongly alkaline materials may produce an exothermic reaction.

**Conditions to avoid:** Avoid elevated temperatures and sources of ignition.

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- **Incompatible materials:** Acids, oxidizing agents, epoxies, isocyanates.
- **Hazardous decomposition products:**  
Thermal decomposition will generate carbon monoxide, carbon dioxide and nitrogen oxides.

**11 Toxicological Information**

- **Information on toxicological effects:**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

100-51-6 Benzyl alcohol		
Oral	LD50	1,230 mg/kg (Rat)
Dermal	LD50	2,000 mg/kg (Rabbit)
9046-10-0 Poly(propylene glycol) bis(2-aminopropyl ether)		
Oral	LD50	2,885.3 mg/kg (Rat)
Dermal	LD50	2,980 mg/kg (Rabbit) Skin - rabbit - Corrosive, category 1C - where responses occur after exposures between 1 hour and 4 hours and observations up to 14 days. - OECD Test Guideline 404.
Inhalative	LC50/4 h	>0.74 mg/l (Rat) (8 hours)
	LC50/96 hours	772.15 mg/l (Trout) (OECD Test Guideline 203)

- **Primary irritant effect:**
- **On the skin:**  
Strong caustic effect on skin and mucous membranes.  
May cause an allergic skin reaction.
- **On the eye:** No irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful  
Irritant

· **Carcinogenic categories:**

<b>· IARC (International Agency for Research on Cancer):</b>	
None of the ingredients are listed.	
<b>· NTP (National Toxicology Program):</b>	
None of the ingredients are listed.	
<b>· OSHA-Ca (Occupational Safety &amp; Health Administration):</b>	
None of the ingredients are listed.	

**12 Ecological Information**

- **Toxicity:**
- **Aquatic toxicity:**  
Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.

9046-10-0 Poly(propylene glycol) bis(2-aminopropyl ether)	
EC50	>15 mg/l (Trout) (OECD Test Guideline 203) 80 mg/l (Daphnia) (OECD Test Guideline 202)

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- **Persistence and degradability:** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**  
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.  
Harmful to aquatic organisms
- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

### 13 Disposal Considerations

- **Waste treatment methods:**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.  
Observe all federal, state and local environmental regulations when disposing of this material.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport Information

- **UN-Number:** UN2735
- **DOT, ADR/ADN, IMDG, IATA**
- **UN proper shipping name:** Amines, liquid, corrosive, n.o.s. (Isophoronediamine, 1,3-Cyclohexanedimethanamine)
- **DOT**
- **ADR/ADN** UN2735 Amines, liquid, corrosive, n.o.s. (Isophoronediamine, 1,3-Cyclohexanedimethanamine), ENVIRONMENTALLY HAZARDOUS
- **IMDG** AMINES, LIQUID, CORROSIVE, N.O.S. (ISOPHORONEDIAMINE, 1,3-Cyclohexanedimethanamine), MARINE POLLUTANT
- **IATA** AMINES, LIQUID, CORROSIVE, N.O.S. (ISOPHORONEDIAMINE, 1,3-Cyclohexanedimethanamine)
- **Transport hazard class(es):**
- **DOT**



- **Class:** 8 Corrosive substances

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**Trade name: Part B Hardener**

• **Label:** 8

• **ADR/ADN**



• **Class:** 8 (C7) Corrosive substances  
 • **Label:** 8

• **IMDG**



• **Class:** 8 Corrosive substances  
 • **Label:** 8

• **IATA**



• **Class:** 8 Corrosive substances  
 • **Label:** 8  
 • **Packing group:**  
 • **DOT, ADR/ADN, IMDG, IATA** I  
 • **Environmental hazards:**  
 • **Special marking (ADR/ADN):** Symbol (fish and tree)  
 • **Special precautions for user:** Warning: Corrosive substances  
 • **Danger code (Kemler):** 88  
 • **EMS Number:** F-A,S-B  
 • **Segregation groups:** Alkalis  
 • **Stowage Category** B  
 • **Stowage Code** SW2 Clear of living quarters.  
 • **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.  
 • **Transport/Additional information:**  
 • **DOT**  
 • **Quantity limitations:** On passenger aircraft/rail: 0.5 L  
 On cargo aircraft only: 2.5 L

• **ADR/ADN**

• **Excepted quantities (EQ):** Code: E0  
 Not permitted as Excepted Quantity

• **IMDG**

• **Limited quantities (LQ):** 0  
 • **Excepted quantities (EQ):** Code: E0  
 Not permitted as Excepted Quantity  
 • **UN "Model Regulation":** UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S.  
 (ISOPHORONEDIAMINE, 1,3-

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**Trade name: Part B Hardener**

CYCLOHEXANEDIMETHANAMINE), 8, I, ENVIRONMENTALLY  
HAZARDOUS

**15 Regulatory Information**

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
- **SARA (Superfund Amendments and Reauthorization):**

• **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

• **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

• **TSCA (Toxic Substances Control Act):**

100-51-6	Benzyl alcohol
2579-20-6	1,3-Cyclohexanedimethanamine
2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine
9046-10-0	Poly(propylene glycol) bis(2-aminopropyl ether)

• **TSCA new (21st Century Act) (Substances not listed)**

Epoxy polyamine adduct

• **California Proposition 65:**

• **Chemicals known to cause cancer:**

None of the ingredients are listed.

• **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

• **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

• **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

• **New Jersey Right-to-Know List:**

2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine
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• **New Jersey Special Hazardous Substance List:**

2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine	CO
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• **Pennsylvania Right-to-Know List:**

100-51-6	Benzyl alcohol
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• **Pennsylvania Special Hazardous Substance List:**

None of the ingredients are listed.

• **Carcinogenic categories:**

• **EPA (Environmental Protection Agency):**

None of the ingredients are listed.

• **TLV (Threshold Limit Value established by ACGIH):**

None of the ingredients are listed.

• **NIOSH-Ca (National Institute for Occupational Safety and Health):**

None of the ingredients are listed.



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**Trade name: Part B Hardener****GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

**Hazard pictograms:**

GHS05 GHS07 GHS09

**Signal word:** Danger**Hazard-determining components of labeling:**

Benzyl alcohol  
Epoxy polyamine adduct  
3-aminomethyl-3,5,5-trimethylcyclohexylamine  
1,3-Cyclohexanedimethanamine

**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.  
H411 Toxic to aquatic life with long lasting effects.

**Precautionary statements:**

P260 Do not breathe mist/vapours/spray.  
P264 Wash thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P272 Contaminated work clothing must not be allowed out of the workplace.  
P273 Avoid release to the environment.  
P280 Wear protective gloves / eye protection / face protection.  
P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P312 Call a poison center if you feel unwell.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P362 Take off contaminated clothing.  
P363 Wash contaminated clothing before reuse.  
P391 Collect spillage.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**National regulations:**

None of the ingredients are listed.

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**16 Other Information**

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The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

• **Date of preparation / last revision:** 01/04/2018 / 2

• **Abbreviations and acronyms:**

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road  
ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
ACGIH: American Conference of Governmental Industrial Hygienists  
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)  
NFPA: National Fire Protection Association (USA)  
HMIS: Hazardous Materials Identification System (USA)  
VOC: Volatile Organic Compounds (USA, EU)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
NIOSH: National Institute for Occupational Safety and Health  
OSHA: Occupational Safety & Health Administration  
TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit  
Acute Tox. 3: Acute toxicity – Category 3  
Acute Tox. 4: Acute toxicity – Category 4  
Skin Corr. 1A: Skin corrosion/irritation – Category 1A  
Skin Corr. 1B: Skin corrosion/irritation – Category 1B  
Skin Corr. 1C: Skin corrosion/irritation – Category 1C  
Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
Skin Sens. 1: Skin sensitisation – Category 1  
Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3  
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2  
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

• **\* Data compared to the previous version altered.**

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