

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2023

Reviewed on 06/08/2023

1 Identification

- **Product identifier**
- **Trade name:** Underwater Substructure Epoxy - Part A
- **Article number:** 140344A
- **Application of the substance / the mixture**
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Dayton® Superior
4226 Kansas Avenue
Kansas City, KS 66106

Tel.: (866) 329-8724

Emergency Telephone Number: Use only in the event of an emergency involving a spill, leak, fire, exposure, or accident involving chemicals. Within the U.S., Canada, or the U.S. Virgin Islands, call ChemTrec at (800) 424-9300, 24 hours a day. Or, outside these areas, call international number, +1 703 741-5970. Collect calls are accepted.

- **Information department:** Environmental, Health, and Safety department.

2 Hazard(s) identification

- **Classification of the substance or mixture**
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.
Aquatic Acute 3 H402 Harmful to aquatic life.
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

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



GHS07

- **Signal word** Warning
- **Hazard-determining components of labeling:**
epoxy resin
nonylphenol
- **Hazard statements**
Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
Harmful to aquatic life.
Harmful to aquatic life with long lasting effects.
- **Precautionary statements**
Avoid breathing dust/fume/gas/mist/vapors/spray
Avoid release to the environment.
Wear protective gloves / eye protection / face protection.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Wash contaminated clothing before reuse.
Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2023

Reviewed on 06/08/2023

Trade name: Underwater Substructure Epoxy - Part A

(Contd. of page 1)

· **Classification system:**· **NFPA ratings (scale 0 - 4)**· **HMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	1	Fire = 1
PHYSICAL HAZARD	0	Reactivity = 0

· **Other hazards**· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Substances**· **CAS No. Description**

25085-99-8 Diglycidyl ether of bisphenol A homopolymer

· **Identification number(s)**· **NLP Number:** 500-033-5· **Index number:** 603-074-00-8· **Chemical characterization: Mixtures**· **Description:** Mixture of the substances listed below with nonhazardous additions.· **Dangerous components:**

25085-99-8	Diglycidyl ether of bisphenol A homopolymer	≥10-<90%
2210-79-9	2,3-epoxypropyl o-tolyl ether	≤10.0%
84852-15-3	4-nonylphenol, branched	≥2.5-<5%

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

4 First-aid measures

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

Immediately remove any clothing soiled by the product.

In the event of persistent symptoms receive medical treatment.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **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.

Immediately move exposed person to fresh air. If breathing difficulty persists or develops get prompt medical attention.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.· **After swallowing:** Seek medical treatment.

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2023

Reviewed on 06/08/2023

Trade name: Underwater Substructure Epoxy - Part A

(Contd. of page 2)

- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** 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:**
Because fire may produce thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **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.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Wear appropriate personal protective clothing to prevent eye and skin contact. Avoid breathing vapors or mists of this product. Use with adequate ventilation. Do not take internally.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:** cool and dry
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:**
Store away from incompatible materials.
Store away from foodstuffs.
- **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 item 7.

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2023

Reviewed on 06/08/2023

Trade name: Underwater Substructure Epoxy - Part A

(Contd. of page 3)

- **Control parameters**
- **Components 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.
- **Additional information:** The lists that were valid during the creation 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.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

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

- **Eye protection:** Wear appropriate eye protection to prevent eye contact.

9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

Form: Liquid

Color: Clear

- **Odor:** Characteristic

- **Odor threshold:** Not determined.

- **pH-value:** Not determined.

- **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 261 °C (501.8 °F)

- **Flash point:** 155 °C (311 °F)

- **Flammability (solid, gaseous):** Not applicable.

- **Ignition temperature:** 370 °C (698 °F)

- **Decomposition temperature:** Not determined.

- **Auto igniting:** Product is not selfigniting.

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

- **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2023

Reviewed on 06/08/2023

Trade name: Underwater Substructure Epoxy - Part A

(Contd. of page 4)

· Vapor pressure:	Not determined.
· Density at 20 °C (68 °F):	1.122 g/cm ³ (9.36309 lbs/gal)
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Solids content:	100.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No decomposition if stored and applied as directed.
- **Chemical stability** No decomposition if stored and applied as directed
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** Reacts with acids, alkalis and oxidizing agents.
- **Conditions to avoid** Keep away from heat and sources of ignition.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**
Carbon monoxide and carbon dioxide
Nitrogen oxides

11 Toxicological information

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

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

25085-99-8 Diglycidyl ether of bisphenol A homopolymer

Oral	LD50	5,000 mg/kg (rat)
Dermal	LD50	20,000 mg/kg (rabbit)

- **Primary irritant effect:**
- **on the skin:** May cause skin irritation.
- **on the eye:**
Strong irritant with the danger of severe eye injury.
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

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2023

Reviewed on 06/08/2023

Trade name: Underwater Substructure Epoxy - Part A

(Contd. of page 5)

· Carcinogenic categories
· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

· Toxicity
· Aquatic toxicity: No further relevant information available.

· 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: Toxic for fish

· Additional ecological information:
· General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Water hazard class 2 (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.

Also 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 as normal garbage. Do not allow product to reach sewage system.

It is the generator's responsibility to determine if the waste meets applicable definitions of hazardous waste. State and local regulations may differ from federal disposal regulations. Dispose of waste material according to local, state, federal, and provincial environmental regulations.

· Uncleaned packagings:
· Recommendation: Disposal must be made according to Federal, State, and Local regulations.

14 Transport information

· UN-Number
· DOT, ADR, ADN, IATA
· IMDG

Not Regulated

UN3082

(Contd. on page 7)

Safety Data Sheet


acc. to OSHA HCS

Printing date 06/08/2023

Reviewed on 06/08/2023

Trade name: Underwater Substructure Epoxy - Part A

(Contd. of page 6)

<ul style="list-style-type: none"> · UN proper shipping name · DOT, ADR, ADN, IATA · IMDG 	<p>Not Regulated</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin), MARINE POLLUTANT</p>
<ul style="list-style-type: none"> · Transport hazard class(es) · DOT, ADR, IATA · Class · Label · ADN/R Class: 	<p>Not Regulated</p> <p>9</p> <p>Not Regulated</p>
<ul style="list-style-type: none"> · IMDG 	
<ul style="list-style-type: none"> · Class · Label 	<p>9 Miscellaneous dangerous substances and articles</p> <p>9</p>
<ul style="list-style-type: none"> · Packing group · DOT, ADR, IMDG, IATA 	<p>III</p>
<ul style="list-style-type: none"> · Environmental hazards: · Marine pollutant: 	<p>Product contains environmentally hazardous substances: 4-nonylphenol, branched</p> <p>Yes</p> <p>Symbol (fish and tree)</p>
<ul style="list-style-type: none"> · Special precautions for user · EMS Number: · Stowage Category 	<p>F-A,S-F</p> <p>A</p>
<ul style="list-style-type: none"> · Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code 	<p>Not applicable.</p>
<ul style="list-style-type: none"> · Transport/Additional information: 	
<ul style="list-style-type: none"> · ADR · U.S. Domestic Ground Shipments: · U.S. Domestic Ground Non-Bulk (119 gal or less per container) Shipments: · Emergency Response Guide (ERG) Number: 	<p>Same as listed for Standard Shipments above.</p> <p>Same as listed for Standard Shipments above.</p> <p>Not determine</p>
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) 	<p>5L</p> <p>Code: E1</p> <p>Maximum net quantity per inner packaging: 30 ml</p> <p>Maximum net quantity per outer packaging: 1000 ml</p>
<ul style="list-style-type: none"> · UN "Model Regulation": 	<p>Not Regulated</p>

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2023

Reviewed on 06/08/2023

Trade name: Underwater Substructure Epoxy - Part A

(Contd. of page 7)

15 Regulatory information

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

· **Sara**

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

None of the ingredient is listed.

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

This product may contain 1 or more toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR part 372. If so, the chemicals are listed below.

84852-15-3	4-nonylphenol, branched	≥2.5-<5%
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· **TSCA (Toxic Substances Control Act):**

25085-99-8	Diglycidyl ether of bisphenol A homopolymer	ACTIVE
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2210-79-9	2,3-epoxypropyl o-tolyl ether	ACTIVE
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84852-15-3	4-nonylphenol, branched	ACTIVE
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· **Hazardous Air Pollutants**

None of the ingredients is listed.

· **Proposition 65**

· **Chemicals known to the State of California (Prop. 65) to cause cancer:**

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

· **Cancerogenity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

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

None of the ingredients is listed.

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

· **Hazard pictograms**



GHS07

· **Signal word** Warning

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

epoxy resin

nonylphenol

(Contd. on page 9)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2023

Reviewed on 06/08/2023

Trade name: Underwater Substructure Epoxy - Part A

(Contd. of page 8)

· Hazard statements

Causes skin irritation.
 Causes serious eye irritation.
 May cause an allergic skin reaction.
 Harmful to aquatic life.
 Harmful to aquatic life with long lasting effects.

· Precautionary statements

Avoid breathing dust/fume/gas/mist/vapors/spray
 Avoid release to the environment.
 Wear protective gloves / eye protection / face protection.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 Wash contaminated clothing before reuse.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

· National regulations:

- **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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.

· **Department issuing SDS:** Environmental, Health & Safety Department

· **Contact:** Environmental, Health & Safety Manager

· **Date of preparation / last revision** 06/08/2023 / 244

· Abbreviations and acronyms:

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
 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)
 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
 OSHA: Occupational Safety & Health
 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 Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3
 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2023

Reviewed on 06/08/2023

1 Identification

· **Product identifier**

· **Trade name:** Underwater Substructure Epoxy - Part B

· **Article number:** 140344B

· **Application of the substance / the mixture**

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Dayton® Superior
4226 Kansas Avenue
Kansas City, KS 66106

Tel.: (866) 329-8724

Emergency Telephone Number: Use only in the event of an emergency involving a spill, leak, fire, exposure, or accident involving chemicals. Within the U.S., Canada, or the U.S. Virgin Islands, call ChemTrec at (800) 424-9300, 24 hours a day. Or, outside these areas, call international number, +1 703 741-5970. Collect calls are accepted.

· **Information department:** Environmental, Health, and Safety department.

2 Hazard(s) identification

· **Classification of the substance or mixture**

Acute Tox. 4 H302 Harmful if swallowed.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2B H320 Causes eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
Repr. 2 H361 Suspected of damaging fertility or the unborn child.
Aquatic Acute 1 H400 Very toxic to aquatic life.
Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

· **Label elements**

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

· **Hazard pictograms**



GHS07 GHS08 GHS09

· **Signal word** Warning

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

nonylphenol
3,6-diazaoctanethylenediamin
2,4,6-tris(dimethylaminomethyl)phenol
cyclohex-1,2-ylenediamine

· **Hazard statements**

Harmful if swallowed.
Causes skin and eye irritation.
May cause an allergic skin reaction.
Suspected of damaging fertility or the unborn child.
Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

· **Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapors/spray
Wear protective gloves/protective clothing/eye protection/face protection.

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2023

Reviewed on 06/08/2023

Trade name: Underwater Substructure Epoxy - Part B

(Contd. of page 1)

If swallowed: Call a poison center/doctor if you feel unwell.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**

HEALTH	3	Health = 3
FIRE	1	Fire = 1
PHYSICAL HAZARD	0	Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

25154-52-3	nonylphenol	≥25-<70%
90-72-2	2,4,6-tris(dimethylaminomethyl)phenol	<6.0%
112-24-3	3,6-diazaoctanethylenediamin	≥5-<5.5%
694-83-7	cyclohex-1,2-ylenediamine	≥1-<1.1%

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

4 First-aid measures

· **Description of first aid measures**

· **General information:**

Immediately remove any clothing soiled by the product.

In the event of persistent symptoms receive medical treatment.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **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.

Immediately move exposed person to fresh air. If breathing difficulty persists or develops get prompt medical attention.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

Immediately rinse with water.

If skin irritation continues, consult a doctor.

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

· **After swallowing:**

Immediately call a doctor.

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2023

Reviewed on 06/08/2023

Trade name: Underwater Substructure Epoxy - Part B

(Contd. of page 2)

Drink copious amounts of water and provide fresh air. Immediately call a doctor.

Seek medical treatment.

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

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

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

· **Advice for firefighters**

· **Protective equipment:**

Because fire may produce thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

6 Accidental release measures

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

Wear protective equipment. Keep unprotected persons away.

· **Environmental precautions:**

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

Inform respective authorities in case of seepage into water course or sewage system.

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

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· **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.

7 Handling and storage

· **Handling:**

· **Precautions for safe handling**

Wear appropriate personal protective clothing to prevent eye and skin contact. Avoid breathing vapors or mists of this product. Use with adequate ventilation. Do not take internally.

· **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:** No special requirements.

· **Information about storage in one common storage facility:** Store away from incompatible materials.

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

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

US

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2023

Reviewed on 06/08/2023

Trade name: Underwater Substructure Epoxy - Part B

(Contd. of page 3)

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
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.

112-24-3 3,6-diazaoctanethylenediamin

WEEL	Long-term value: 6 mg/m ³ , 1 ppm
	Skin

- **Additional information:** The lists that were valid during the creation 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.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

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

- **Eye protection:** Wear appropriate eye protection to prevent eye contact.

9 Physical and chemical properties

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

Form:	Liquid
Color:	Amber
Odor:	Characteristic
Odor threshold:	Not determined.
- **pH-value:** Not determined.
- **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
- **Flash point:** >94 °C (>201.2 °F)
- **Flammability (solid, gaseous):** Not applicable.
- **Ignition temperature:** 335 °C (635 °F)
- **Decomposition temperature:** Not determined.

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2023

Reviewed on 06/08/2023

Trade name: Underwater Substructure Epoxy - Part B

(Contd. of page 4)

· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	1.0 Vol %
Upper:	0.0 Vol %
· Vapor pressure:	Not determined.
· Density at 20 °C (68 °F):	0.97 g/cm ³ (8.09465 lbs/gal)
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	0.0 %
Water:	0.0 %
Solids content:	100.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No decomposition if stored and applied as directed.
- **Chemical stability** No decomposition if stored and applied as directed
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Keep away from heat and sources of ignition.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

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

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

25154-52-3 nonylphenol

Oral LD50 1,620 mg/kg (rat)

112-24-3 3,6-diazaoctanethylenediamin

Oral LD50 2,500 mg/kg (rat)

Dermal LD50 805 mg/kg (rabbit)

- **Primary irritant effect:**
- **on the skin:** May cause skin irritation.

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2023

Reviewed on 06/08/2023

Trade name: Underwater Substructure Epoxy - Part B

(Contd. of page 5)

· **on the eye:***Strong caustic effect.**Strong irritant with the danger of severe eye injury.*· **Sensitization:** *Sensitization possible through skin contact.*· **Additional toxicological information:***The product shows the following dangers according to internally approved calculation methods for preparations:**Harmful**Corrosive**Irritant**Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.*· **Carcinogenic categories**· **IARC (International Agency for Research on Cancer)**

105-60-2	1,6-hexanolactam	3
71-43-2	benzene	1

· **NTP (National Toxicology Program)**

71-43-2	benzene	K
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· **OSHA-Ca (Occupational Safety & Health Administration)**

71-43-2	benzene
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12 Ecological information

· **Toxicity**· **Aquatic toxicity:** *No further relevant information available.*· **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:** *Very toxic for fish*· **Additional ecological information:**· **General notes:***Water hazard class 3 (Self-assessment): extremely hazardous for water**Do not allow product to reach ground water, water course or sewage system, even in small quantities.**Water hazard class 1 (Self-assessment): slightly hazardous for water**Must not reach bodies of water or drainage ditch undiluted or unneutralized.**Also poisonous for fish and plankton in water bodies.**Very 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 as normal garbage. Do not allow product to reach sewage system.**It is the generator's responsibility to determine if the waste meets applicable definitions of hazardous waste. State and local regulations may differ from federal disposal regulations. Dispose of waste material according to local, state, federal, and provincial environmental regulations.*

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2023



Reviewed on 06/08/2023

Trade name: Underwater Substructure Epoxy - Part B

(Contd. of page 6)

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to Federal, State, and Local regulations.

14 Transport information

<ul style="list-style-type: none"> · UN-Number · DOT, ADR, IMDG, IATA 	UN3082
<ul style="list-style-type: none"> · UN proper shipping name · DOT · ADR · IMDG · IATA 	Environmentally hazardous substance, liquid, n.o.s. (4-nonylphenol, branched) 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (4-nonylphenol, branched) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (4-nonylphenol, branched), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (4-nonylphenol, branched)
<ul style="list-style-type: none"> · Transport hazard class(es) · DOT 	
<ul style="list-style-type: none"> · Class · Label 	9 Miscellaneous dangerous substances and articles 9
<ul style="list-style-type: none"> · ADR, IMDG, IATA 	
<ul style="list-style-type: none"> · Class · Label 	9 Miscellaneous dangerous substances and articles 9
<ul style="list-style-type: none"> · Packing group · DOT, ADR, IMDG, IATA 	III
<ul style="list-style-type: none"> · Environmental hazards: · Marine pollutant: · Special marking (ADR): · Special marking (IATA): 	Product contains environmentally hazardous substances: 4-nonylphenol, branched Yes Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree)
<ul style="list-style-type: none"> · Special precautions for user · EMS Number: · Stowage Category 	Warning: Miscellaneous dangerous substances and articles F-A,S-F A
<ul style="list-style-type: none"> · Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code 	Not applicable.

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2023

Reviewed on 06/08/2023

Trade name: Underwater Substructure Epoxy - Part B

(Contd. of page 7)

· **Transport/Additional information:**· **DOT**· **Remarks:**

Add "Marine Pollutant" to end of proper shipping name if shipping in a bulk container (>119 gallons).
Special marking with the symbol (fish and tree).

· **ADR**· **U.S. Domestic Ground Shipments:**

Same as listed for Standard Shipments above.

· **U.S. Domestic Ground Non-Bulk (119 gal or less per container) Shipments:**

Same as listed for Standard Shipments above.

· **Emergency Response Guide (ERG) Number:**

Not determine

· **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 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S. (4-NONYLPHENOL, BRANCHED), 9, III

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**· **Sara**· **Section 355 (extremely hazardous substances):**

7664-41-7	ammonia, anhydrous
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· **Section 313 (Specific toxic chemical listings):**

This product may contain 1 or more toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR part 372. If so, the chemicals are listed below.

25154-52-3	nonylphenol	≥25-<70%
7664-41-7	ammonia, anhydrous	<0.1%
71-43-2	benzene	<0.1%

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

25154-52-3	nonylphenol	ACTIVE
9046-10-0	Polyoxypropylenediamine	ACTIVE
90-72-2	2,4,6-tris(dimethylaminomethyl)phenol	ACTIVE
112-24-3	3,6-diazaoctanethylenediamin	ACTIVE
143-23-7	1,6-Hexanediamine, N-(6-aminohexyl)-	ACTIVE
694-83-7	cyclohex-1,2-ylenediamine	ACTIVE
124-09-4	hexamethylenediamine	ACTIVE
15520-10-2	2-methylpentane-1,5-diamine	ACTIVE
105-60-2	1,6-hexanolactam	ACTIVE
2432-74-8	6-aminohexanonitrile	ACTIVE
7664-41-7	ammonia, anhydrous	ACTIVE
111-49-9	perhydroazepine	ACTIVE
71-43-2	benzene	ACTIVE

(Contd. on page 9)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2023

Reviewed on 06/08/2023

Trade name: Underwater Substructure Epoxy - Part B

(Contd. of page 8)

7732-18-5	water, distilled, conductivity or of similar purity	ACTIVE
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· Hazardous Air Pollutants

71-43-2	benzene
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· Proposition 65
· Chemicals known to the State of California (Prop. 65) to cause cancer:

71-43-2	benzene
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· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

71-43-2	benzene
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· Chemicals known to cause developmental toxicity:

71-43-2	benzene
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· Cancerogenity categories
· EPA (Environmental Protection Agency)

71-43-2	benzene	A, K/L
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· TLV (Threshold Limit Value established by ACGIH)

105-60-2	1,6-hexanolactam	A5
71-43-2	benzene	A1

· MAK (German Maximum Workplace Concentration)

71-43-2	benzene	I
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· NIOSH-Ca (National Institute for Occupational Safety and Health)

71-43-2	benzene
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· GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms


GHS07 GHS08 GHS09

· Signal word Warning

· Hazard-determining components of labeling:

nonylphenol

3,6-diazaoctanethylenediamin

2,4,6-tris(dimethylaminomethyl)phenol

cyclohex-1,2-ylenediamine

· Hazard statements

Harmful if swallowed.

Causes skin and eye irritation.

May cause an allergic skin reaction.

Suspected of damaging fertility or the unborn child.

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

· Precautionary statements

Avoid breathing dust/fume/gas/mist/vapors/spray

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Call a poison center/doctor if you feel unwell.

(Contd. on page 10)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2023

Reviewed on 06/08/2023

Trade name: Underwater Substructure Epoxy - Part B

(Contd. of page 9)

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations:**

· **Water hazard class:** Water hazard class 3 (Self-assessment): extremely hazardous for water.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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.

· **Department issuing SDS:** Environmental, Health & Safety Department

· **Contact:** Environmental, Health & Safety Manager

· **Date of preparation / last revision** 06/08/2023 / 245

· **Abbreviations and acronyms:**

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

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)

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

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute Tox. 4: Acute toxicity – Category 4

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

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

Skin Sens. 1: Skin sensitisation – Category 1

Repr. 2: Reproductive toxicity – Category 2

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1