1 Identification

- **Product identifier**
  - **Trade name:** Pro-Poxy 100 - Part A
  - **Article number:** 140048A

- **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 Chronic 2** H411 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](image1.png) ![GHS09](image2.png)

- **Signal word** Warning

- **Hazard-determining components of labeling:**
  - reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700) oxirane, mono[(C12-14-alkyloxy)methyl] derivs

- **Hazard statements**
  - Causes skin irritation.
  - Causes serious eye irritation.
  - May cause an allergic skin reaction.
  - Toxic 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)
Trade name: Pro-Poxy 100 - Part A

- Classification system:
  - NFPA ratings (scale 0 - 4)
    - Health = 2
    - Fire = 0
    - Reactivity = 0

- HMIS-ratings (scale 0 - 4)
  - HEALTH: Health = 2
  - FIRE: Fire = 0
  - PHYSICAL HAZARD: 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:
  - 25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700) ≥70-≤90%
  - 68609-97-2 oxirane, mono[(C12-14-alkyloxy)methyl] derivs 10%

- 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.

- 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.

- 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.
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).
  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 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.
- **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.
### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
  - **Appearance:**
    - Form: Liquid
    - Color: Light yellow
  - **Odor:** Slight
  - **Odor threshold:** Not determined.
  - **pH-value:** Not determined.
- **Change in condition**
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: Undetermined.
- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Not applicable.
- **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.
- **Vapor pressure:** Not determined.
- **Density at 20 °C (68 °F):** 1.11918 g/cm³ (9.33956 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.
### 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**:
  - **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:
  - Irritant

- **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:**
    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, IMDG, IATA: Not Regulated

- **UN proper shipping name**
  - DOT, ADR, ADN, IMDG, IATA: Not Regulated

- **Transport hazard class(es)**
  - DOT, ADR, ADN, IMDG, IATA: Not Regulated

- **Packing group**
  - DOT, ADR, IMDG, IATA: Not Regulated

- **Environmental hazards:**
  - Product contains environmentally hazardous substances: reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**
  - Not applicable.

- **Transport/Additional information:**
  - **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
  - **UN "Model Regulation":** Not Regulated
15 Regulatory information

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

<table>
<thead>
<tr>
<th>Section 355 (extremely hazardous substances):</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of the ingredient is listed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section 313 (Specific toxic chemical listings):</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
</tr>
<tr>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TSCA (Toxic Substances Control Act):</th>
</tr>
</thead>
<tbody>
<tr>
<td>25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)</td>
</tr>
<tr>
<td>68609-97-2 oxirane, mono[(C12-14-alkyloxy)methyl] derivs</td>
</tr>
</tbody>
</table>

- **Hazardous Air Pollutants**

| None of the ingredients is listed. |

- **Proposition 65**

<table>
<thead>
<tr>
<th>Chemicals known to the State of California (Prop. 65) to cause cancer:</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemicals known to cause reproductive toxicity for females:</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemicals known to cause reproductive toxicity for males:</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemicals known to cause developmental toxicity:</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>

- **Cancerogenity categories**

<table>
<thead>
<tr>
<th>EPA (Environmental Protection Agency)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TLV (Threshold Limit Value established by ACGIH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MAK (German Maximum Workplace Concentration)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NIOSH-Ca (National Institute for Occupational Safety and Health)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>

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

- **Hazard pictograms**

<table>
<thead>
<tr>
<th>GHS07</th>
<th>GHS09</th>
</tr>
</thead>
</table>

- **Signal word** Warning

<table>
<thead>
<tr>
<th>Hazard-determining components of labeling:</th>
</tr>
</thead>
<tbody>
<tr>
<td>reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)</td>
</tr>
<tr>
<td>oxirane, mono[(C12-14-alkyloxy)methyl] derivs</td>
</tr>
</tbody>
</table>
Hazard statements

Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
Toxic 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.

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 08/20/2020 / 4
- 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)
  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 Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
1 Identification

· Product identifier
· Trade name: Pro-Poxy 100 - Part B
· Article number: 140048B
· 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 Corr. 1B H314 Causes severe skin burns and eye damage.
  Eye Dam. 1 H318 Causes serious eye damage.
  Skin Sens. 1 H317 May cause an allergic skin reaction.
  Repr. 1B H360 May damage fertility or the unborn child.
  STOT SE 3 H335 May cause respiratory irritation.
  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

![GHS05][1]
![GHS07][1]
![GHS08][1]
![GHS09][1]

· Signal word Danger

· Hazard-determining components of labeling:
  2-piperazin-1-ylethylamine
  4-nonylphenol, branched
  3-aminomethyl-3,5,5-trimethylcyclohexylamine
  3,6,9-triazaundecamethylenediamine
  3,6-diazaoctanethylenediamin

· Hazard statements
  Harmful if swallowed.
  Causes severe skin burns and eye damage.
  May cause an allergic skin reaction.
  May damage fertility or the unborn child.
  May cause respiratory irritation.
  Very toxic to aquatic life.
  Very toxic to aquatic life with long lasting effects.

(Contd. on page 2)
Trade name: Pro-Poxy 100 - Part B

- **Precautionary statements**
  - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - Immediately call a poison center/doctor.
  - Specific treatment (see on this label).
  - Store locked up.
  - Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**
  - **NFPA ratings (scale 0 - 4)**
    - Health = 3
    - Fire = 0
    - Reactivity = 0
  - **HMIS-ratings (scale 0 - 4)**
    - Health = *3
    - Fire = 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:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>84852-15-3 4-nonylphenol, branched</td>
<td>25%</td>
</tr>
<tr>
<td>140-31-8 2-piperazin-1-ylethylamine</td>
<td>25%</td>
</tr>
<tr>
<td>100-51-6 Benzyl alcohol</td>
<td>≥5-≤10%</td>
</tr>
<tr>
<td>2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine</td>
<td>≥3-≤10%</td>
</tr>
<tr>
<td>112-57-2 3,6,9-triazaundecamethylenediamine</td>
<td>≥5-≤56%</td>
</tr>
<tr>
<td>Trade Secret</td>
<td>≥1-≤56%</td>
</tr>
<tr>
<td>112-24-3 3,6-diazaoctanethylenediamin</td>
<td>≥2.5-≤3%</td>
</tr>
</tbody>
</table>

**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 recieve 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.
49.0

- 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.
  - 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: 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).
  - 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: Keep respiratory protective device available.
- 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: Not required.
Trade name: Pro-Poxy 100 - Part B

- 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.
- Control parameters
- Components with limit values that require monitoring at the workplace:
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

<table>
<thead>
<tr>
<th>Constituent</th>
<th>PEL/TLV</th>
<th>Additional information</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-51-6 Benzyl alcohol</td>
<td>Long-term value: 10 ppm</td>
<td></td>
</tr>
<tr>
<td>112-57-2 3,6,9-triazaundecamethylene diamine</td>
<td>WEEL Long-term value: 5 mg/m³</td>
<td>The lists that were valid during the creation were used as basis.</td>
</tr>
<tr>
<td></td>
<td>Skin: DSEN</td>
<td></td>
</tr>
<tr>
<td>112-24-3 3,6-diazaoctanethylenediamine</td>
<td>WEEL Long-term value: 6 mg/m³, 1 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skin</td>
<td></td>
</tr>
</tbody>
</table>

- 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.
  Store protective clothing separately.
  Avoid contact with the eyes.
  Avoid contact with the eyes and skin.
- Breathing equipment: Suitable respiratory protective device recommended.
- 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: According to product specification
  - Odor: Ammonia-like
  - Odor threshold: Not determined.
### pH-value:
Not determined.

<table>
<thead>
<tr>
<th>Change in condition</th>
<th>Melting point/Melting range:</th>
<th>Undetermined.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boiling point/Boiling range:</td>
<td>Undetermined.</td>
</tr>
</tbody>
</table>

| Flash point:          | Not applicable.             |
| Flammability (solid, gaseous): | Not applicable. |
| Decomposition temperature: | Not determined. |
| Auto igniting:        | Product is not selfigniting.|
| Danger of explosion:  | Product does not present an explosion hazard. |

| Explosion limits:     | Not determined.             |
| Lower:                | Not determined.             |
| Upper:                | Not determined.             |

| Vapor pressure:       | Not determined.             |
| Density at 20 °C (68 °F): | 0.94663 g/cm³ (7.89963 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:                               | Not determined.             |
| Dynamic:                                 | Not determined.             |
| Kinematic:                               | Not determined.             |

| Solvent content:                         | 5-10 %                        |
| Organic solvents:                        | Not determined.             |
| Other information                        | No further relevant information available. |
| Volatile Organic Compounds:              | Contains less than 50 g/L. |

### 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:

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Substance</th>
<th>LD50</th>
<th>LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>140-31-8</td>
<td>2-piperazin-1-ylethylamine</td>
<td>Oral: 2,140 mg/kg (rat)</td>
<td>Dermal: 880 mg/kg (rabbit)</td>
</tr>
<tr>
<td>112-57-2</td>
<td>3,6,9-triazaundecamethylenediamine</td>
<td>Dermal: 660 mg/kg (rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

- Primary irritant effect:
  - on the skin: May cause skin irritation.
  - 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)
    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: Very toxic for fish

- Additional ecological information:
  - General notes:
    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.
13 Disposal considerations

- Waste treatment methods
  - Recommendation:
    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, IMDG, IATA
    - UN2735

- UN proper shipping name
  - DOT
    - Amines, liquid, corrosive, n.o.s. (4-nonylphenol, branched, Tetraethylenepentamine)
  - ADR
    - 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (4-nonylphenol, branched, TETRAETHYLENEPENTAMINE), ENVIRONMENTALLY HAZARDOUS
  - IMDG
    - AMINES, LIQUID, CORROSIVE, N.O.S. (4-nonylphenol, branched, TETRAETHYLENEPENTAMINE), MARINE POLLUTANT
  - IATA
    - AMINES, LIQUID, CORROSIVE, N.O.S. (4-nonylphenol, branched, TETRAETHYLENEPENTAMINE)

- Transport hazard class(es)
  - DOT
    - Class 8 Corrosive substances
    - Label 8
  - ADR, IATA
    - Class 8 Corrosive substances
    - Label 8
### IMDG

- **Class**: 8 Corrosive substances
- **Label**: 8
- **Packing group**: DOT, ADR, IMDG, IATA
- **DOT Class**: III
- **Environmental hazards**: Product contains environmentally hazardous substances: 4-nonylphenol, branched
- **Marine pollutant**: Symbol (fish and tree)
- **Special precautions for user**: Warning: Corrosive substances
- **Danger code (Kemler)**: 80
- **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**:
  - **ADR**: Code: E1
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 1000 ml
  - **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**: Code: E1
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 1000 ml
  - **UN "Model Regulation"**: UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (4-NONYLPHENOL, BRANCHED, TETRAETHYLENEPENTAMINE), 8, III, ENVIRONMENTALLY HAZARDOUS

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**: None of the ingredient is listed
- **Sara**: None
- **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.

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Chemical Name</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>84852-15-3</td>
<td>4-nonylphenol, branched</td>
<td>25%</td>
</tr>
</tbody>
</table>

- **TSCA (Toxic Substances Control Act):**
  - 68953-36-6 Polyamido Amine
  - 84852-15-3 4-nonylphenol, branched
  - 140-31-8 2-piperazin-1-ylethylamine
  - 100-51-6 Benzyl alcohol
  - 2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine
  - 112-57-2 3,6,9-triazaundecamethylenediamine
  - Trade Secret
  - 112-24-3 3,6-diazaoctanethylenediamine

- **Hazard 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**
    - GHS05
    - GHS07
    - GHS08
    - GHS09

- **Signal word** Danger

  - **Hazard-determining components of labeling:**
    - 2-piperazin-1-ylethylamine
    - 4-nonylphenol, branched
3-aminomethyl-3,5,5-trimethylcyclohexylamine
3,6,9-triazaundecamethylenediamine
3,6-diazaoctanethylenediamine

- **Hazard statements**
  Harmful if swallowed.
  Causes severe skin burns and eye damage.
  May cause an allergic skin reaction.
  May damage fertility or the unborn child.
  May cause respiratory irritation.
  Very toxic to aquatic life.
  Very toxic to aquatic life with long lasting effects.

- **Precautionary statements**
  If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor.
  Specific treatment (see on this label).
  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.

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### 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** 08/20/2020 / 4
- **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 Corr. 1B: Skin corrosion/irritation – Category 1B
  - Eye Dam. 1: Serious eye damage/eye irritation – Category 1
  - Skin Sens. 1: Skin sensitisation – Category 1
  - Repr. 1B: Reproductive toxicity – Category 1B
  - STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
  - 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