Safety Data Sheet
AMERICAN BILTRITE AD-535 PART A
Safety Data Sheet dated: 5/26/2016 - version 4
Date of first edition: 5/13/2015

1. IDENTIFICATION

Product identifier
Mixture identification:

Trade name: AMERICAN BILTRITE AD-535 PART A

Recommended use of the chemical and restrictions on use
Recommended use: Epoxy adhesive
Restrictions on use: N.A.

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party
Company: American Biltrite
200 Bank Street
J1H 4K3 - Sherbrooke - Quebec - CAN
Phone: 1-800-479-0190

Emergency 24 hour numbers:
(USA) CHEMTREC 1-800-424-9300
(Canada) CANUTEC 1-613-996-6666

2. HAZARD(S) IDENTIFICATION

Classification of the chemical
Skin Irrit. 2 Causes skin irritation.
Eye Irrit. 2A Causes serious eye irritation.
Skin Sens. 1A May cause an allergic skin reaction.
Aquatic Acute 3 Harmful to aquatic life.
Aquatic Chronic 2 Toxic to aquatic life with long lasting effects.

Label elements
Symbols:

![Warning Icon]  

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H315</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H402</td>
<td>Harmful to aquatic life.</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P201</td>
<td>Obtain special instructions before use.</td>
</tr>
<tr>
<td>P202</td>
<td>Do not handle until all safety precautions have been read and understood.</td>
</tr>
<tr>
<td>P260.1</td>
<td>Do not breathe mist/vapours/spray.</td>
</tr>
<tr>
<td>P264.2</td>
<td>Wash skin thoroughly after handling.</td>
</tr>
<tr>
<td>P270</td>
<td>Do not eat, drink or smoke when using this product.</td>
</tr>
<tr>
<td>P272</td>
<td>Contaminated work clothing should not be allowed out of the workplace.</td>
</tr>
<tr>
<td>P273</td>
<td>Avoid release to the environment.</td>
</tr>
<tr>
<td>P280</td>
<td>Wear protective gloves/protective clothing/eye protection/face protection.</td>
</tr>
<tr>
<td>P302+P352.A</td>
<td>IF ON SKIN: Wash with plenty of water.</td>
</tr>
<tr>
<td>P305+P351+P338</td>
<td>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</td>
</tr>
<tr>
<td>P308+P313</td>
<td>IF exposed or concerned: Get medical advice/attention.</td>
</tr>
</tbody>
</table>
Ingredient(s) with unknown acute toxicity:

None

Hazards not otherwise classified identified during the classification process:

None

This product contains crystalline silica (quartz sand). IARC has classified crystalline silica as a Group 1 carcinogen. Both IARC and NTP consider silica as a known human carcinogen. Evidence is based on the chronic and long-term exposure workers have had to respirable sized crystalline silica dust particles. Because this product is in liquid or paste form, it does not pose a dust hazard; therefore, this classification is not relevant. (Note: sanding of the hardened product may create a silica dust hazard)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

N.A.

Mixtures

Hazardous components within the meaning of 29 CFR 1910.1200 and related classification:

<table>
<thead>
<tr>
<th>List of components</th>
<th>Quantity</th>
<th>Name</th>
<th>Ident. Numb.</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>25-50 %</td>
<td>Bisphenol A epoxy resin</td>
<td>CAS:25085-99-8</td>
<td>Skin Sens. 1B; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Aquatic Chronic 2, H411</td>
</tr>
<tr>
<td></td>
<td>10-25 %</td>
<td>(Chloromethyl)oxirane, 4, 4'-(1-methylethylidene)biphenol copolymer</td>
<td>CAS:25088-38-6</td>
<td>Eye Irrit. 2A, H319; Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Acute 2, H401; Aquatic Chronic 2, H411</td>
</tr>
<tr>
<td></td>
<td>5-10 %</td>
<td>Alkyl epoxy resin</td>
<td>CAS:68609-97-2</td>
<td>Skin Irrit. 2, H315; Skin Sens. 1, H317</td>
</tr>
<tr>
<td></td>
<td>2-5.5 %</td>
<td>Dipropylene glycol dibenzoate</td>
<td>CAS:27138-31-4</td>
<td>Aquatic Chronic 3, H412</td>
</tr>
<tr>
<td></td>
<td>1-2.5 %</td>
<td>Caster oil glycidyl ether</td>
<td>CAS:74398-71-3</td>
<td>Skin Irrit. 2, H315; Skin Sens. 1A, H317</td>
</tr>
<tr>
<td></td>
<td>1-2.5 %</td>
<td>Silica Sand</td>
<td>CAS:14808-60-7</td>
<td>Carc. 1A, H350; STOT RE 1, H372</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Obtain medical attention if skin related symptoms persist.

Remove contaminated clothing immediately and dispose of safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and the hazard label.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

Most important symptoms/effects, acute and delayed

Eye irritation

Eye damages

Skin Irritation

Erythema

Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media:
Water.
Carbon dioxide (CO2).

Unsuitable extinguishing media:
None in particular.

Specific hazards arising from the chemical
Do not inhale explosion and combustion gases.
Burning produces heavy smoke.
Hazardous combustion products: N.A.
Explosive properties: N.A.
Oxidizing properties: N.A.

Special protective equipment and precautions for fire-fighters
Use suitable breathing apparatus.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Move undamaged containers from immediate hazard area if it can be done safely.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Wear personal protection equipment.
Remove persons to safety.
See protective measures under point 7 and 8.

Methods and material for containment and cleaning up
Suitable material for taking up: absorbing material, organic, sand
Wash with plenty of water.

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes, inhalation of vapours and mists.
Exercise the greatest care when handling or opening the container.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
Contaminated clothing should be changed before entering eating areas.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.

Conditions for safe storage, including any incompatibilities
Storage temperature: N.A.
Incompatible materials:
None in particular.
Instructions as regards storage premises:
Adequately ventilated premises.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

List of components with OEL value

<table>
<thead>
<tr>
<th>Component</th>
<th>OEL Type</th>
<th>Country</th>
<th>Ceiling</th>
<th>Long Term</th>
<th>Long Term</th>
<th>Short Term</th>
<th>Short Term</th>
<th>Behaviour</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica Sand</td>
<td>ACGIH</td>
<td></td>
<td></td>
<td>0.025</td>
<td>ppm</td>
<td>mg/m³</td>
<td>mg/m³</td>
<td></td>
<td>A2 - Suspected Human Carcinogen;lung cancer;pulmonary fibrosis;</td>
</tr>
</tbody>
</table>

Appropriate engineering controls: N.A.

Individual protection measures
Eye protection:
Use close fitting safety goggles, don't use eye lens.

Protection for skin:
Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:
Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:
Use adequate protective respiratory equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties
Physical state: Liquid
Appearance and colour: Paste beige
Odour: N.A.
Odour threshold: N.A.
pH: N.A.
Melting point / freezing point: N.A.
Initial boiling point and boiling range: N.A.
Flash point: >100 °C (212 °F)
Evaporation rate: N.A.
Upper/lower flammability or explosive limits: N.A.
Vapour density: N.A.
Vapour pressure: N.A.
Relative density: 1.47 g/cm³
Solubility in water: Insoluble
Solubility in oil: N.A.
Partition coefficient (n-octanol/water): N.A.
Auto-ignition temperature: N.A.
Decomposition temperature: N.A.
Viscosity: N.A.
Explosive properties: N.A.
Oxidizing properties: N.A.
Solid/gas flammability: N.A.

Other information
- Substance groups relevant properties: N.A.
- Miscibility: N.A.
- Fat Solubility: N.A.
- Conductivity: N.A.

10. STABILITY AND REACTIVITY

Reactivity
- Stable under normal conditions

Chemical stability
- Data not Available.

Possibility of hazardous reactions
- None.

Conditions to avoid
- Stable under normal conditions.

Incompatible materials
- None in particular.

Hazardous decomposition products
- None.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Toxicological information of the mixture:
- There is no toxicological data available on the mixture. Consider the individual concentration of each component to assess toxicological effects resulting from exposure to the mixture.

Toxicological information on main components of the mixture:

- (Chloromethyl)oxirane, 4, 4'-(1-methylethylidene)bisphenol copolymer: a) acute toxicity
  - LD₅₀ Oral Rat 11400mg/kg

- Silica Sand: a) acute toxicity
  - LD₅₀ Oral Rat 500mg/kg

If not differently specified, the information required in the regulation and listed below must be considered as N.A.

- a) acute toxicity
- b) skin corrosion/irritation
- c) serious eye damage/irritation
- d) respiratory or skin sensitisation
- e) germ cell mutagenicity
- f) carcinogenicity
- g) reproductive toxicity
- h) STOT-single exposure
i) STOT-repeated exposure
j) aspiration hazard

Substance(s) listed on the IARC Monographs:

<table>
<thead>
<tr>
<th>Substance(s)</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica Sand</td>
<td>1</td>
</tr>
</tbody>
</table>

Substance(s) listed as OSHA Carcinogen(s):

<table>
<thead>
<tr>
<th>Substance(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica Sand</td>
</tr>
</tbody>
</table>

Substance(s) listed as NIOSH Carcinogen(s):

<table>
<thead>
<tr>
<th>Substance(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica Sand</td>
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Substance(s) listed on the NTP report on Carcinogens:

<table>
<thead>
<tr>
<th>Substance(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica Sand</td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION

Toxicity
Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

<table>
<thead>
<tr>
<th>Persistence and degradability</th>
<th>N.A.</th>
</tr>
</thead>
</table>

Bioaccumulative potential
N.A.

Mobility in soil
N.A.

Other adverse effects
N.A.

List of components with eco-toxicological properties

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Component</th>
<th>Ident. Numb.</th>
<th>Ecotox Infos</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2.5 %</td>
<td>Silica Sand</td>
<td>CAS: 14808-60-7</td>
<td>LC50 a) Aquatic acute toxicity carp&gt; 10000,00000mg/L 72h</td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste treatment methods
Waste must be handled in accordance with all federal, state, provincial, and local regulations. Consult authorities before disposal.

14. TRANSPORT INFORMATION

UN number

<table>
<thead>
<tr>
<th>ADR-UN number: 3082</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT-UN Number: UN3082</td>
</tr>
<tr>
<td>IATA-Un number: 3082</td>
</tr>
<tr>
<td>IMDG-Un number: 3082</td>
</tr>
</tbody>
</table>

UN proper shipping name

| ADR-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol A epoxy resin - Dipropylene glycol dibenzoate) |
| DOT-Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A epoxy resin - Dipropylene glycol dibenzoate) |
| IATA-Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol A epoxy resin - Dipropylene glycol dibenzoate) |
| IMDG-Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol A epoxy resin - Dipropylene glycol dibenzoate) |

Transport hazard class(es)

| ADR-Class: 9 |
| DOT-Hazard Class: 9 |
| IATA-Class: 9 |
| IMDG-Class: 9 |

Packing group

| ADR-Packing Group: III |
| DOT-Packing group: III |
| IATA-Packing group: III |
| IMDG-Packing group: III |
Environmental hazards
  Marine pollutant: Yes
  Environmental Pollutant: N.A.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
  N.A.

Special precautions
  Department of Transportation (DOT):
    DOT-Special Provision(s): 8, 146, 173, 335, IB3, T4, TP1
    DOT-Label(s): 9
    DOT-Symbol: N/A
    DOT-Cargo Aircraft: N/A
    DOT-Passenger Aircraft: N/A
    DOT-Bulk: N/A
    DOT-Non-Bulk: N/A

  Road and Rail (ADR-RID):
    ADR exempt: No
    ADR-Label: 9
    ADR-Hazard identification number: 90
    ADR-Tunnel Restriction Code: 3 (E)

  Air (IATA):
    IATA-Passenger Aircraft: 964
    IATA-Cargo Aircraft: 964
    IATA-Label: 9
    IATA-Subrisk: -
    IATA-Erg: 9L
    IATA-Special Provisions: A97 A158

Sea (IMDG):
  IMDG-Stowage Code: Category A
  IMDG-Stowage Note: -
  IMDG-Subrisk: -
  IMDG-Special Provisions: 274 335
  IMDG-Page: N/A
  IMDG-Label: 9
  IMDG-EMS: F-A, S-F
  IMDG-MFAG: N/A

15. REGULATORY INFORMATION

USA - Federal regulations

  TSCA - Toxic Substances Control Act

    TSCA inventory:
    All the components are listed on the TSCA inventory

    TSCA listed substances:
    Bisphenol A epoxy resin is listed in TSCA Section 8b
    (Chloromethyl)oxirane, 4, 4'-{1-methylenebis[1-methylene-4-
      oxiranylidene]bisphenol copolymer is listed in TSCA Section 8b
    Alkyl epoxy resin is listed in TSCA Section 8b
    Dipropylene glycol dibenzoate is listed in TSCA Section 8b
    Caster oil glycidyl ether is listed in TSCA Section 8b
    Silica Sand is listed in TSCA Section 8b

  SARA - Superfund Amendments and Reauthorization Act

    Section 302 - Extremely Hazardous Substances:
    no substances listed

    Section 304 - Hazardous substances:
    no substances listed

    Section 313 - Toxic chemical list:
CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

Substance(s) listed under CERCLA:
no substances listed

CAA - Clean Air Act

CAA listed substances:
no substances listed

CWA - Clean Water Act

CWA listed substances:
no substances listed

USA - State specific regulations

California Proposition 65

Substance(s) listed under California Proposition 65:
Silica Sand Listed as carcinogen

Massachusetts Right to know

Substance(s) listed under Massachusetts Right to know:
Silica Sand

Pennsylvania Right to know

Substance(s) listed under Pennsylvania Right to know:
Silica Sand

New Jersey Right to know

Substance(s) listed under New Jersey Right to know:
Silica Sand

Canada- Federal regulations

DSL - Domestic Substances List

DSL Inventory:
All the substances are listed in the DSL.

NDSL - Non Domestic Substances List

NDSL Inventory:
no substances listed

NPRI - National Pollutant Release Inventory

Substances listed in NPRI:
no substances listed

16. OTHER INFORMATION

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<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>H315</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H350</td>
<td>May cause cancer.</td>
</tr>
<tr>
<td>H372</td>
<td>Causes damage to organs through prolonged or repeated exposure</td>
</tr>
<tr>
<td>H401</td>
<td>Toxic to aquatic life.</td>
</tr>
<tr>
<td>H402</td>
<td>Harmful to aquatic life.</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>H412</td>
<td>Harmful to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>

Safety Data Sheet dated: 5/26/2016 - version 4
Product code: 2920
**Additional classification information**

- **HMIS Health:** 1 = Slight
- **HMIS Health - Is health hazard chronic?:** Yes
- **HMIS Flammability:** 1 = Combustible if heated
- **HMIS Reactivity:** 0 = Minimal
- **HMIS P.P.E.:** Safety glasses, gloves
- **NFPA Health:** 1 = Slight
- **NFPA Flammability:** 1 = Combustible if heated
- **NFPA Reactivity:** 0 = Minimal
- **NFPA Special Risk:** NONE

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. The information herein is presented in good faith and believed to be accurate as of the effective date given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

This document was prepared by a competent person who has received appropriate training.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

**Legend to abbreviations and acronyms used in the safety data sheet:**

- **ADR:** European Agreement concerning the International Carriage of Dangerous Goods by Road.
- **RID:** Regulation Concerning the International Transport of Dangerous Goods by Rail.
- **IMDG:** International Maritime Code for Dangerous Goods.
- **IATA:** International Air Transport Association.
- **IATA-DGR:** Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
- **ICAO:** International Civil Aviation Organization.
- **ICAO-TI:** Technical Instructions by the "International Civil Aviation Organization" (ICAO).
- **GHS:** Globally Harmonized System of Classification and Labeling of Chemicals.
- **CLP:** Classification, Labeling, Packaging.
- **EINECS:** European Inventory of Existing Commercial Chemical Substances.
- **INCI:** International Nomenclature of Cosmetic Ingredients.
- **CAS:** Chemical Abstracts Service (division of the American Chemical Society).
- **GefStoffVO:** Ordinance on Hazardous Substances, Germany.
- **LC50:** Lethal concentration, for 50 percent of test population.
- **LD50:** Lethal dose, for 50 percent of test population.
- **DNEL:** Derived No Effect Level.
- **PNEC:** Predicted No Effect Concentration.
- **TLV:** Threshold Limiting Value.
- **TWATLV:** Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
- **STEL:** Short Term Exposure limit.
- **STOT:** Specific Target Organ Toxicity.
- **WGK:** German Water Hazard Class.
- **KSt:** Explosion coefficient.

**Paragraphs modified from the previous revision:**

- 1. **IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**
- 2. **HAZARDS IDENTIFICATION**
- 3. **COMPOSITION/INFORMATION ON INGREDIENTS**
- 9. **PHYSICAL AND CHEMICAL PROPERTIES**
- 12. **ECOLOGICAL INFORMATION**
- 16. **OTHER INFORMATION**
1. IDENTIFICATION
Product identifier
Mixture identification:

Trade name: AMERICAN BILTRITE AD-535 PART B

Recommended use of the chemical and restrictions on use
Recommended use: Hardener for epoxy products
Restrictions on use: N.A.

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party
Company: American Biltrite
200 Bank Street
J1H 4K3 - Sherbrooke - Quebec - CAN
Phone: 1-800-479-0190

Emergency 24 hour numbers:
(USA) CHEMTREC 1-800-424-9300
(Canada) CANUTEC 1-613-996-6666

2. HAZARD(S) IDENTIFICATION

Classification of the chemical
Acute Tox. 4  Harmful if inhaled.
Skin Corr. 1A  Causes severe skin burns and eye damage.
Eye Dam. 1  Causes serious eye damage.
Skin Sens. 1A  May cause an allergic skin reaction.
Muta. 2  Suspected of causing genetic defects if inhaled.
Repr. 1B  May damage fertility or the unborn child if inhaled.
STOT SE 2  May cause damage to organs if inhaled.
Aquatic Acute 3  Harmful to aquatic life.
Aquatic Chronic 2  Toxic to aquatic life with long lasting effects.

Label elements

Symbols:

Danger

Code  Description
H314  Causes severe skin burns and eye damage.
H317  May cause an allergic skin reaction.
H318  Causes serious eye damage.
H332  Harmful if inhaled.
H341.A  Suspected of causing genetic defects if inhaled.
H360.A  May damage fertility or the unborn child if inhaled.
H371.A  May cause damage to organs if inhaled.
H402  Harmful to aquatic life.
H411  Toxic to aquatic life with long lasting effects.

Code  Description
P201  Obtain special instructions before use.
P202  Do not handle until all safety precautions have been read and understood.
P260.1  Do not breathe mist/vapours/spray.
3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances
N.A.

Mixtures

Hazardous components within the meaning of 29 CFR 1910.1200 and related classification:

List of components

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<th>Quantity</th>
<th>Name</th>
<th>Ident. Numb.</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-50 %</td>
<td>Amides, from methyl epoxyhydroxyoctadecanoate, tetraethylenepentamine and vegetable-oil fatty acids</td>
<td>CAS:68443-08-3</td>
<td>Skin Corr. 1A, H314; Eye Dam. 1, H318; STOT SE 3, H335</td>
</tr>
<tr>
<td></td>
<td>2,4,6-Trimethylaminomethylphenol</td>
<td>CAS:90-72-2</td>
<td>Skin Corr. 1B, H314; Skin Sens. 1A, H317; Aquatic Chronic 3, H412</td>
</tr>
<tr>
<td>10-25 %</td>
<td>Dipropylaminephthalene</td>
<td>CAS:38640-62-9</td>
<td>Asp. Tox. 1, H304; Aquatic Chronic 1, H410</td>
</tr>
<tr>
<td>5-10 %</td>
<td>Bisphenol A</td>
<td>CAS:80-05-7</td>
<td>Repr. 2, H335; STOT SE 3, H318; Eye Dam. 1, H317; Skin Sens. 1, H317</td>
</tr>
<tr>
<td>5-10 %</td>
<td>Dimethylpiperazine</td>
<td>CAS:140-31-8</td>
<td>Acute Tox. 3, H311; Skin Corr. 1B, H314; Skin Sens. 1, H317; Eye Dam. 1, H318; Repr. 1B, H360</td>
</tr>
<tr>
<td>2.5-5 %</td>
<td>Diethylenetriamine</td>
<td>CAS:111-40-0</td>
<td>Skin Corr. 1B, H314; Acute Tox. 4, H312; Eye Dam. 1, H318; Skin Sens. 1B, H317; Repr. 2, H361; STOT SE 3, H335; Aquatic Chronic 3, H412; Acute Tox. 4, H302; Acute Tox. 2, H330</td>
</tr>
<tr>
<td>2.5-5 %</td>
<td>Bis(dimethylamino)methylphenol</td>
<td>CAS:71074-89-0</td>
<td>Skin Corr. 1B, H314</td>
</tr>
<tr>
<td>1-2.5 %</td>
<td>4-Nonylphenol, branched</td>
<td>CAS:84852-15-3</td>
<td>Repr. 2, H361; Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Eye Dam. 1, H318; Muta. 2, H341; STOT SE 2, H371</td>
</tr>
<tr>
<td></td>
<td>EC:284-325-5</td>
<td>Index:601-053-00-8</td>
<td></td>
</tr>
<tr>
<td>1-2.5 %</td>
<td>Benzylidemethylamine</td>
<td>CAS:103-83-3</td>
<td>Flam. Liq. 3, H226; Skin Corr. 1B, H314; Aquatic Chronic 3, H412; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Description of first aid measures

In case of skin contact:
- Immediately take off all contaminated clothing.
- Obtain medical attention if skin related symptoms persist.
- Remove contaminated clothing immediately and dispose of safely.
- After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:
- After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.
Protect uninjured eye.

In case of Ingestion:
Do not induce vomiting, get medical attention showing the SDS and the hazard label.

In case of Inhalation:
If breathing is irregular or stopped, administer artificial respiration.
In case of inhalation, consult a doctor immediately and show him packing or label.

**Most important symptoms/effects, acute and delayed**

Eye irritation
Eye damages
Skin Irritation
Erythema

**Indication of any immediate medical attention and special treatment needed**
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

---

**5. FIRE-FIGHTING MEASURES**

**Extinguishing media**

Suitable extinguishing media:
- Water.
- Carbon dioxide (CO2).

**Unsuitable extinguishing media:**
None in particular.

**Specific hazards arising from the chemical**
- Do not inhale explosion and combustion gases.
- Burning produces heavy smoke.
- Hazardous combustion products: N.A.
- Explosive properties: N.A.
- Oxidizing properties: N.A.

**Special protective equipment and precautions for fire-fighters**
- Use suitable breathing apparatus.
- Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
- Move undamaged containers from immediate hazard area if it can be done safely.

---

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**
- Wear personal protection equipment.
- Wear breathing apparatus if exposed to vapours/dusts/aerosols.
- Provide adequate ventilation.
- Use appropriate respiratory protection.
- See protective measures under point 7 and 8.

**Methods and material for containment and cleaning up**
- Suitable material for taking up: absorbing material, organic, sand
- Wash with plenty of water.

---

**7. HANDLING AND STORAGE**

**Precautions for safe handling**
- Avoid contact with skin and eyes, inhalation of vapours and mists.
- Exercise the greatest care when handling or opening the container.
- Do not use on extensive surface areas in premises where there are occupants.
- Use localized ventilation system.
- Don't use empty container before they have been cleaned.
- Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
- Contaminated clothing should be changed before entering eating areas.
- Do not eat or drink while working.
- See also section 8 for recommended protective equipment.

**Conditions for safe storage, including any incompatibilities**
- Storage temperature: N.A.
- Incompatible materials:
  - None in particular.

**Instructions as regards storage premises:**
- Adequately ventilated premises.

---

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**
Control parameters

List of components with OEL value

<table>
<thead>
<tr>
<th>Component</th>
<th>OEL Type</th>
<th>Country</th>
<th>Ceiling</th>
<th>Long Term mg/m³</th>
<th>Long Term ppm</th>
<th>Short Term mg/m³</th>
<th>Short Term ppm</th>
<th>Behaviour</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol A</td>
<td>EU</td>
<td></td>
<td></td>
<td>10</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diethylene triamine</td>
<td>ACGIH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Indicative</td>
</tr>
</tbody>
</table>

Appropriate engineering controls: N.A.

Individual protection measures

Eye protection:
Use close fitting safety goggles, don't use eye lens.

Protection for skin:
Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:
Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:
Use adequate protective respiratory equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

- Physical state: Liquid
- Appearance and colour: amber
- Odour: like: Amines
- Odour threshold: N.A.
- pH: N.A.
- Melting point / freezing point: N.A.
- Initial boiling point and boiling range: N.A.
- Flash point: >100 °C (212 °F)
- Evaporation rate: N.A.
- Upper/lower flammability or explosive limits: N.A.
- Vapour density: N.A.
- Vapour pressure: N.A.
- Relative density: 9.80 g/cm³
- Solubility in water: Insoluble
- Solubility in oil: N.A.
- Partition coefficient (n-octanol/water): N.A.
- Auto-ignition temperature: N.A.
- Decomposition temperature: N.A.
- Viscosity: N.A.
- Explosive properties: N.A.
- Oxidizing properties: N.A.
- Solid/gas flammability: N.A.

Other information

- Substance groups relevant properties: N.A.
- Miscibility: N.A.
- Fat Solubility: N.A.
- Conductivity: N.A.

10. STABILITY AND REACTIVITY

Reactivity
Stable under normal conditions

Chemical stability
Data not Available.

Possibility of hazardous reactions
None.

Conditions to avoid
Stable under normal conditions.

Incompatible materials
None in particular.

Hazardous decomposition products
None.
11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Toxicological information of the mixture:

There is no toxicological data available on the mixture. Consider the individual concentration of each component to assess toxicological effects resulting from exposure to the mixture.

Toxicological information on main components of the mixture:

2,4-Di(dimethylaminomethyl)phenol
a) acute toxicity
LD50 Skin Rat = 1280mg/kg
LD50 Oral Rat = 1000mg/kg

Diisopropylnaphthalene
a) acute toxicity
LD50 Skin Rat > 4500mg/kg
LC50 Inhalation Rat > 5,6400mg/l 4h
LD50 Oral Rat = 3900mg/kg

Bisphenol A
a) acute toxicity
LD50 Skin Rabbit = 3000,00000mg/kg
LD50 Oral Rat = 3200mg/kg
LD50 Skin Rabbit = 3ml/kg

Aminoethylpiperazine
a) acute toxicity
LD50 Skin Rabbit = 880µL/kg
LD50 Oral Rat = 2140mg/kg
LD50 Oral Rat = 2140µL/kg

Diethylene triamine
a) acute toxicity
LD50 Skin Rabbit = 672mg/kg
LD50 Oral Rat = 819mg/kg

4-Nonylphenol, branched
a) acute toxicity
LD50 Oral Rat 1300mg/kg
LD50 Skin Rabbit > 2000mg/kg

If not differently specified, the information required in the regulation and listed below must be considered as N.A.

- a) acute toxicity
- b) skin corrosion/irritation
- c) serious eye damage/irritation
- d) respiratory or skin sensitisation
- e) germ cell mutagenicity
- f) carcinogenicity
- g) reproductive toxicity
- h) STOT-single exposure
- i) STOT-repeated exposure
- j) aspiration hazard

Substance(s) listed on the IARC Monographs:
None

Substance(s) listed as OSHA Carcinogen(s):
None

Substance(s) listed as NIOSH Carcinogen(s):
None

Substance(s) listed on the NTP report on Carcinogens:
None

12. ECOLOGICAL INFORMATION

Toxicity
Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

List of components with eco-toxicological properties
<table>
<thead>
<tr>
<th>Quantity</th>
<th>Component</th>
<th>Ident. Numb.</th>
<th>Ecotox Infos</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-25 %</td>
<td>Diisopropynaphthalene</td>
<td>CAS: 38640-62-9</td>
<td>LC50 a) Aquatic acute toxicity Fish Cyprinus carpio= 1000mg/L 96h</td>
</tr>
<tr>
<td>10-25 %</td>
<td>Diisopropynaphthalene</td>
<td>CAS: 38640-62-9</td>
<td>LC50 a) Aquatic acute toxicity Fish Orezlys latipes= 1000mg/L 96h</td>
</tr>
<tr>
<td>5-10 %</td>
<td>Bisphenol A</td>
<td>CAS: 80-05-7</td>
<td>LC50 a) Aquatic acute toxicity Fish Pimephales promelas3,60000mg/L 96h EPA</td>
</tr>
<tr>
<td>5-10 %</td>
<td>Bisphenol A</td>
<td>CAS: 80-05-7</td>
<td>LC50 a) Aquatic acute toxicity Fish Oncorhynchus mykiss= 4mg/L 96h IUCLID</td>
</tr>
<tr>
<td>5-10 %</td>
<td>Bisphenol A</td>
<td>CAS: 80-05-7</td>
<td>LC50 a) Aquatic acute toxicity Fish Brachydanio rerio= 9,90000mg/L 96h IUCLID</td>
</tr>
<tr>
<td>5-10 %</td>
<td>Aminoethylpiperazine</td>
<td>CAS: 140-31-8</td>
<td>LC50 a) Aquatic acute toxicity Fish Pimephales promelas1950mg/L 96h IUCLID</td>
</tr>
<tr>
<td>5-10 %</td>
<td>Aminoethylpiperazine</td>
<td>CAS: 140-31-8</td>
<td>LC50 a) Aquatic acute toxicity Fish Poecilia reticulata= 100mg/L 96h IUCLID</td>
</tr>
<tr>
<td>2.5-5 %</td>
<td>Diethylenetriamine</td>
<td>CAS: 111-40-0</td>
<td>LC50 a) Aquatic acute toxicity Fish Leuiscus idus= 248mg/L 96h IUCLID</td>
</tr>
<tr>
<td>2.5-5 %</td>
<td>Diethylene triamine</td>
<td>CAS: 111-40-0</td>
<td>LC50 a) Aquatic acute toxicity Fish Leuiscus idus= 16mg/L 48h IUCLID</td>
</tr>
<tr>
<td>1-2.5 %</td>
<td>4-Nonylphenol, branched</td>
<td>CAS: 84852-15-3</td>
<td>LC100 Fish Leuciscus idus=1,1mg/L 48h .Huels study, 1988 (unpublished)</td>
</tr>
<tr>
<td>1-2.5 %</td>
<td>4-Nonylphenol, branched</td>
<td>CAS: 84852-15-3</td>
<td>LC50 Fish Leuciscus idus=0,95mg/L 48h .Huels study, 1988 (unpublished)</td>
</tr>
<tr>
<td>1-2.5 %</td>
<td>4-Nonylphenol, branched</td>
<td>CAS: 84852-15-3</td>
<td>LOEC Fish Pimephales promelas4µg/L 33d .Chemical Manufacturers Association (1991) Two environmental effects 4-Nonylphenol final reports 1. Chronic toxicity of Nonylphenol to the Mysid, Myisodopsis bahia: EnviroSystems Study Number 8977-CMA 2. Early life stage toxicity of Nonylphenol to the fat</td>
</tr>
<tr>
<td>1-2.5 %</td>
<td>4-Nonylphenol, branched</td>
<td>CAS: 84852-15-3</td>
<td>NOEC Fish Pimephales promelas7,4µg/L 33d .Chemical Manufacturers Association (1991) Two environmental effects 4-Nonylphenol final reports 1. Chronic toxicity of Nonylphenol to the Mysid, Myisodopsis bahia: EnviroSystems Study Number 8977-CMA 2. Early life stage toxicity of Nonylphenol to the fat</td>
</tr>
<tr>
<td>1-2.5 %</td>
<td>4-Nonylphenol, branched</td>
<td>CAS: 84852-15-3</td>
<td>EC100 Daphnia Daphnia magna= 400µg/L 48h .Huels report No. DK-522, 1992 (unpublished)</td>
</tr>
<tr>
<td>1-2.5 %</td>
<td>4-Nonylphenol, branched</td>
<td>CAS: 84852-15-3</td>
<td>EC0 Daphnia Daphnia magna&lt; 100µg/L 48h .Huels report No. DK-522, 1992 (unpublished)</td>
</tr>
<tr>
<td>1-2.5 %</td>
<td>4-Nonylphenol, branched</td>
<td>CAS: 84852-15-3</td>
<td>LC50 Fish Pimephales promelas0,135mg/L 96h .Huels study, 1988 (unpublished)</td>
</tr>
<tr>
<td>1-2.5 %</td>
<td>4-Nonylphenol, branched</td>
<td>CAS: 84852-15-3</td>
<td>LC50 Fish Pimephales promelas0,135mg/L 96h .Huels study, 1988 (unpublished)</td>
</tr>
<tr>
<td>1-2.5 %</td>
<td>4-Nonylphenol, branched</td>
<td>CAS: 84852-15-3</td>
<td>LOEC Fish Pimephales promelas0,2µg/L 21d .Chemical Manufacturers Association (1991) Two environmental effects 4-Nonylphenol final reports 1. Chronic toxicity of Nonylphenol to the Mysid, Myisodopsis bahia: EnviroSystems Study Number 8977-CMA 2. Early life stage toxicity of Nonylphenol to the fat</td>
</tr>
<tr>
<td>1-2.5 %</td>
<td>4-Nonylphenol, branched</td>
<td>CAS: 84852-15-3</td>
<td>NOEC Fish Pimephales promelas0,2µg/L 21d .Chemical Manufacturers Association (1991) Two environmental effects 4-Nonylphenol final reports 1. Chronic toxicity of Nonylphenol to the Mysid, Myisodopsis bahia: EnviroSystems Study Number 8977-CMA 2. Early life stage toxicity of Nonylphenol to the fat</td>
</tr>
<tr>
<td>1-2.5 %</td>
<td>4-Nonylphenol, branched</td>
<td>CAS: 84852-15-3</td>
<td>EC90 Algae Scenedesmus subspicatus (Desmodesmus subspicatus)3,2mg/L 72h Huels study (unpublished)</td>
</tr>
<tr>
<td>1-2.5 %</td>
<td>4-Nonylphenol, branched</td>
<td>CAS: 84852-15-3</td>
<td>EC10 Algae Scenedesmus subspicatus (Desmodesmus subspicatus)0,5mg/L 72h Huels study (unpublished)</td>
</tr>
<tr>
<td>1-2.5 %</td>
<td>4-Nonylphenol, branched</td>
<td>CAS: 84852-15-3</td>
<td>EC50 Algae Scenedesmus subspicatus (Desmodesmus subspicatus)1,3mg/L 72h Huels study (unpublished)</td>
</tr>
<tr>
<td>1-2.5 %</td>
<td>4-Nonylphenol, branched</td>
<td>CAS: 84852-15-3</td>
<td>LC50 a) Aquatic acute toxicity Fish Pimephales promelas= 135mg/L 96h IUCLID</td>
</tr>
<tr>
<td>1-2.5 %</td>
<td>4-Nonylphenol, branched</td>
<td>CAS: 84852-15-3</td>
<td>LC50 a) Aquatic acute toxicity Fish Lepomis macrochirus= 135mg/L 96h EPA</td>
</tr>
<tr>
<td>1-2.5 %</td>
<td>Benzylidimethylamine</td>
<td>CAS: 103-83-3</td>
<td>LC50 a) Aquatic acute toxicity Fish Pimephales promelas135mg/L 96h EPA</td>
</tr>
</tbody>
</table>

**Persistence and degradability**
N.A.

**Bioaccumulative potential**
N.A.

**Mobility in soil**
N.A.
13. DISPOSAL CONSIDERATIONS
Waste treatment methods
Waste must be handled in accordance with all federal, state, provincial, and local regulations. Consult authorities before disposal.

14. TRANSPORT INFORMATION
UN number
ADR-UN number: 1760
DOT-UN Number: UN1760
IATA-Un number: 1760
IMDG-Un number: 1760

UN proper shipping name
ADR-Shipping Name: CORROSIVE LIQUID, N.O.S. (Amides, from methyl epoxyhydroxyoctadecanoate, tetraethylenepentamine and vegetable-oil fatty acids - 2,4,6-Tri(dimethylaminomethyl)phenol)
DOT-Proper Shipping Name: Corrosive liquids, n.o.s. (Amides, from methyl epoxyhydroxyoctadecanoate, tetraethylenepentamine and vegetable-oil fatty acids - 2,4,6-Tri(dimethylaminomethyl)phenol)
IATA-Technical name: CORROSIVE LIQUID, N.O.S. (Amides, from methyl epoxyhydroxyoctadecanoate, tetraethylenepentamine and vegetable-oil fatty acids - 2,4,6-Tri(dimethylaminomethyl)phenol)
IMDG-Technical name: CORROSIVE LIQUID, N.O.S. (Amides, from methyl epoxyhydroxyoctadecanoate, tetraethylenepentamine and vegetable-oil fatty acids - 2,4,6-Tri(dimethylaminomethyl)phenol)

Transport hazard class(es)
ADR-Class: 8
DOT-Hazard Class: 8
IATA-Class: 8
IMDG-Class: 8

Packing group
ADR-Packing Group: III
DOT-Packing group: III
IATA-Packing group: III
IMDG-Packing group: III

Environmental hazards
Marine pollutant: Yes
Environmental Pollutant: N.A.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
N.A.

Special precautions
Department of Transportation (DOT):
DOT-Special Provision(s): IB3, T7, TP1, TP28
DOT-Label(s): 8
DOT-Symbol: N/A
DOT-Cargo Aircraft: N/A
DOT-Passenger Aircraft: N/A
DOT-Bulk: N/A
DOT-Non-Bulk: N/A

Road and Rail (ADR-RID):
ADR-Label: 8
ADR-Hazard identification number: 80
ADR-Tunnel Restriction Code: 3 (E)

Air (IATA):
IATA-Passenger Aircraft: 852
IATA-Cargo Aircraft: 856
IATA-Label: 8
IATA-Subrisk: -
IATA-Erg: 8L
IATA-Special Provisions: A3 A803

Sea (IMDG):
IMDG-Stowage Code: Category A
IMDG-Stowage Note: Clear of living quarters.
15. REGULATORY INFORMATION

USA - Federal regulations

TSCA - Toxic Substances Control Act

TSCA Inventory:
All the components are listed on the TSCA inventory

TSCA listed substances:
- Amides, from methyl epoxihydroxyoctadecanoate, tetraethylenepentamine and vegetable-oil fatty acids
- 2,4,6-Tris(dimethylaminomethyl)phenol
- Diisopropynaphthalene
- Bisphenol A
- Aminoethylpiperazine
- Diethylene triamine
- 4-Nonylphenol, branched
- Benzylidimethylamine

SARA - Superfund Amendments and Reauthorization Act

Section 302 - Extremely Hazardous Substances:
no substances listed

Section 304 - Hazardous substances:
no substances listed

Section 313 - Toxic chemical list:
Bisphenol A

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

Substance(s) listed under CERCLA:
no substances listed

CAA - Clean Air Act

CAA listed substances:
Bisphenol A is listed in CAA Section 112(b) - HON

CWA - Clean Water Act

CWA listed substances:
no substances listed

USA - State specific regulations

California Proposition 65

Substance(s) listed under California Proposition 65:
no substances listed

Massachusetts Right to know

Substance(s) listed under Massachusetts Right to know:
Bisphenol A
Aminoethylpiperazine
Diethylene triamine

Pennsylvania Right to know

Substance(s) listed under Pennsylvania Right to know:
New Jersey Right to know

Substance(s) listed under New Jersey Right to know:
- Bisphenol A
- Aminoethylpiperazine
- Diethylene triamine
- Benzyldimethylamine

Canada- Federal regulations

DSL - Domestic Substances List

DSL Inventory:
All the substances are listed in the DSL.

NDSL - Non Domestic Substances List

NDSL Inventory:
no substances listed

NPRI - National Pollutant Release Inventory

Substances listed in NPRI:
no substances listed

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H226</td>
<td>Flammable liquid and vapour.</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>H304</td>
<td>May be fatal if swallowed and enters airways.</td>
</tr>
<tr>
<td>H311</td>
<td>Toxic in contact with skin.</td>
</tr>
<tr>
<td>H312</td>
<td>Harmful in contact with skin.</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage.</td>
</tr>
<tr>
<td>H330</td>
<td>Fatal if inhaled.</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled.</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation.</td>
</tr>
<tr>
<td>H341</td>
<td>Suspected of causing genetic defects .</td>
</tr>
<tr>
<td>H341.A</td>
<td>Suspected of causing genetic defects if inhaled.</td>
</tr>
<tr>
<td>H360</td>
<td>May damage fertility or the unborn child &lt;state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard&gt;.</td>
</tr>
<tr>
<td>H360.A</td>
<td>May damage fertility or the unborn child if inhaled.</td>
</tr>
<tr>
<td>H361</td>
<td>Suspected of damaging fertility or the unborn child &lt;state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard&gt;.</td>
</tr>
<tr>
<td>H371</td>
<td>May cause damage to organs &lt;state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard&gt;.</td>
</tr>
<tr>
<td>H371.A</td>
<td>May cause damage to organs if inhaled.</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life.</td>
</tr>
<tr>
<td>H402</td>
<td>Harmful to aquatic life.</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>H412</td>
<td>Harmful to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>

Safety Data Sheet dated: 5/26/2016 - version 4
Product code: 2921

Additional classification information
HMIS Health: 3 = Serious
HMIS Health - Is health hazard chronic?: Yes
HMIS Flammability: 1 = Combustible if heated
HMIS Reactivity: 0 = Minimal
HMIS P.P.E.: Safety glasses, gloves, chemical apron
NFPA Health: 2 = Moderate
NFPA Flammability: 1 = Combustible if heated
NFPA Reactivity: 0 = Minimal
NFPA Special Risk: N.A.

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. The information herein is presented in good faith and believed to be accurate as of the effective date given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

This document was prepared by a competent person who has received appropriate training.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO: International Civil Aviation Organization.
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
CLP: Classification, Labeling, Packaging.
EINECS: European Inventory of Existing Commercial Chemical Substances.
INCI: International Nomenclature of Cosmetic Ingredients.
CAS: Chemical Abstracts Service (division of the American Chemical Society).
GefStoffVO: Ordinance on Hazardous Substances, Germany.
LC50: Lethal concentration, for 50 percent of test population.
LD50: Lethal dose, for 50 percent of test population.
DNEL: Derived No Effect Level.
PNEC: Predicted No Effect Concentration.
TLV: Threshold Limiting Value.
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
WGK: German Water Hazard Class.
Kst: Explosion coefficient.

Paragraphs modified from the previous revision:
- 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING
- 2. HAZARDS IDENTIFICATION
- 9. PHYSICAL AND CHEMICAL PROPERTIES
- 16. OTHER INFORMATION