Sodium Azide

SAFETY DATA SHEET

Section 1. Identification

GHS product identifier: Sodium Azide
Code: 21610
Other means of identification: Sodium azide (Na(N3)); Sodium azide (as HN3); Sodium azide (as NaN3); Sodium salt of hydrazoic acid; Azium; Azide
Trade name: Sodium Azide, ULTRAPURE
Supplier/Manufacturer: 3420 Central Expressway, Santa Clara CA 95051
In case of emergency: Chemtrec: 1 800 424 9300
Outside USA & Canada: +1 703 527 3887

Section 2. Hazards identification

OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture: ACUTE TOXICITY (oral) - Category 2
ACUTE TOXICITY (dermal) - Category 1
GHS label elements
Hazard pictograms:

Signal word: Danger
Hazard statements: Fatal if swallowed or in contact with skin.
Precautionary statements
Prevention: Wear protective gloves. Wear protective clothing. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.
Response: IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. IF ON SKIN: Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Immediately call a POISON CENTER or physician. Wash contaminated clothing before reuse.
Storage: Store locked up.
Disposal: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazards not otherwise classified: None known.

Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingredient name</td>
<td>%</td>
</tr>
<tr>
<td>sodium azide</td>
<td>100</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

CAUTION: This product contains Sodium Azide. Build-ups of Sodium Azide may react with lead and copper plumbing to form highly explosive metal azides.
Section 4. First aid measures

Description of necessary first aid measures

Eye contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact: Get medical attention immediately. Call a poison center or physician. Gently wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact: No known significant effects or critical hazards.

Inhalation: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact: Fatal in contact with skin.

Ingestion: Fatal if swallowed.

Over-exposure signs/symptoms

Eye contact: No specific data.

Inhalation: No specific data.

Skin contact: No specific data.

Ingestion: No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments: No specific treatment.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)
Section 5. Fire-fighting measures

Extinguishing media
- Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media: None known.

Specific hazards arising from the chemical decomposition products: Decomposition products may include the following materials:
  - Nitrogen oxides
  - Metal oxide/oxides

No specific fire or explosion hazard.

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
- For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up
- Small spill: Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill: Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling
- Protective measures: Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not ingest. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters
Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium azide</td>
<td>OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. CEIL: 0.1 ppm, (as HN3) CEIL: 0.3 mg/m³, (as NaN3) NIOSH REL (United States, 10/2013). Absorbed through skin. CEIL: 0.1 ppm, (as HN3) CEIL: 0.3 mg/m³, (NAN3) ACGIH TLV (United States, 6/2013). C: 0.11 ppm, (as Hydrazoic acid vapor) Form: as Hydrazoic acid vapor C: 0.29 mg/m³, (as Sodium azide) Form: as Sodium azide</td>
</tr>
</tbody>
</table>

Appropriate engineering controls

Environmental exposure controls

Individual protection measures

Hygiene measures
- Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Eye/face protection
- Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Skin protection

Hand protection
- Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection
- Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. Recommended: Full-Face Respirator.

Body protection
- Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: chemical-resistant protective suit

Other skin protection
- Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Boots

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Appropriate engineering controls
- Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Hygiene measures
- Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. Recommended: Full-Face Respirator.

Skin protection

Hand protection
- Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Eye/face protection
- Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: chemical-resistant protective suit

Other skin protection
- Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Boots
Section 8. Exposure controls/personal protection

Respiratory protection: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: SCBA = Self-Contained Breathing Apparatus.

Section 9. Physical and chemical properties

- **Physical state**: Solid. [Crystals.]
- **Color**: Colorless. White. [Light]
- **Odor**: Odorless.
- **Flash point**: Not applicable.
- **Auto-ignition temperature**: 309°C (588.2°F)
- **Flammable limits**: Not available.
- **Molecular weight**: 65.01 g/mole
- **Molecular formula**: N3-Na
- **pH**: 9
- **Boiling/condensation point**: Not available.
- **Melting/freezing point**: Not available.
- **Relative density**: 1.8475
- **Vapor pressure**: Not available.
- **Vapor density**: Not available.
- **Volatility**: Not available.
- **Evaporation rate**: Not applicable.
- **Viscosity**: Not available.
- **Solubility**: Soluble in the following materials: cold water.

Section 10. Stability and reactivity

- **Reactivity**: No specific test data related to reactivity available for this product or its ingredients.
- **Chemical stability**: The product is stable.
- **Possibility of hazardous reactions**: Under normal conditions of storage and use, hazardous reactions will not occur.
- **Conditions to avoid**: No specific data.
- **Incompatible materials**: No specific data.
- **Hazardous decomposition products**: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

**Information on toxicological effects**

**Acute toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium azide</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>20 mg/kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rat</td>
<td>50 mg/kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>27 mg/kg</td>
<td></td>
</tr>
</tbody>
</table>

**Irritation/Corrosion**

Not available.
Section 11. Toxicological information

**Conclusion/Summary**
- **Skin**: May cause local irritation or stinging effect.
- **Eyes**: Eyes will appear to be bloodshot because of dilated blood vessels. This may be the first symptom of sodium azide exposure.
- **Respiratory**: Airborne concentrations of sodium azide can cause headaches, shortness of breath, increased respiration and heartbeat, nausea and dizziness.

**Sensitization**
Not available.

**Mutagenicity**
Not available.

**Carcinogenicity**
Not available.

**Classification**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>OSHA</th>
<th>IARC</th>
<th>NTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium azide</td>
<td>None</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Reproductive toxicity**
Not available.

**Teratogenicity**
Not available.

**Specific target organ toxicity (single exposure)**
Not available.

**Specific target organ toxicity (repeated exposure)**
Not available.

**Aspiration hazard**
Not available.

**Information on the likely routes of exposure**
- Routes of entry anticipated: Oral, Dermal, Inhalation.

**Potential acute health effects**
- **Eye contact**: No known significant effects or critical hazards.
- **Inhalation**: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- **Skin contact**: Fatal in contact with skin.
- **Ingestion**: Fatal if swallowed.

**Symptoms related to the physical, chemical and toxicological characteristics**
- **Eye contact**: No specific data.
- **Inhalation**: No specific data.
- **Skin contact**: No specific data.
- **Ingestion**: No specific data.

**Delayed and immediate effects and also chronic effects from short and long term exposure**

**Short term exposure**
- **Potential immediate effects**: Not available.
- **Potential delayed effects**: Not available.

**Long term exposure**
Section 11. Toxicological information

**Potential immediate effects**
Not available.

**Potential delayed effects**
Not available.

**Potential chronic health effects**
Not available.

**General**
No known significant effects or critical hazards.

**Carcinogenicity**
No known significant effects or critical hazards.

**Mutagenicity**
No known significant effects or critical hazards.

**Teratogenicity**
No known significant effects or critical hazards.

**Developmental effects**
No known significant effects or critical hazards.

**Fertility effects**
No known significant effects or critical hazards.

Numerical measures of toxicity

**Acute toxicity estimates**
Not available.

Section 12. Ecological information

<table>
<thead>
<tr>
<th>Toxicity</th>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>sodium azide</td>
<td>Acute EC50 0.348 mg/l Fresh water</td>
<td>Algae - Pseudokirchneriella subcapitata</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute EC50 6.4 mg/l Fresh water</td>
<td>Crustaceans - Simocephalus serrulatus - Larvae</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute EC50 4.2 mg/l Fresh water</td>
<td>Daphnia - Daphnia pulex - Larvae</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute LC50 0.68 mg/l Fresh water</td>
<td>Fish - Lepomis macrochirus</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chronic NOEC 5600 µg/l Marine water</td>
<td>Algae - Macrocystis pyrifera</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

**Persistence and degradability**
Not available.

**Bioaccumulative potential**
Not available.

**Mobility in soil**

| Soil/water partition coefficient (K\text{oc}) | Not available. |

**Other adverse effects**
No known significant effects or critical hazards.

Section 13. Disposal considerations

**Disposal methods**
The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues.
## Sodium Azide

### Section 13. Disposal considerations
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**United States - RCRA Acute hazardous waste "P" List**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS #</th>
<th>Status</th>
<th>Reference number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium azide</td>
<td>26628-22-8</td>
<td>Listed</td>
<td>P105</td>
</tr>
</tbody>
</table>

### Section 14. Transport information

<table>
<thead>
<tr>
<th>UN number</th>
<th>UN proper shipping name</th>
<th>Transport hazard class(es)</th>
<th>DOT Classification</th>
<th>TDG Classification</th>
<th>Mexico Classification</th>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN1687</td>
<td>Sodium azide</td>
<td>6.1</td>
<td>UN1687</td>
<td>UN1687</td>
<td>UN1687</td>
<td>UN1687</td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Packing group</th>
<th>Environmental hazards</th>
<th>Additional information</th>
</tr>
</thead>
<tbody>
<tr>
<td>II</td>
<td>No.</td>
<td>Reportable quantity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1000 lbs / 454 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Packaging instruction</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Passenger aircraft</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quantity limitation: 25 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Cargo aircraft</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quantity limitation: 100 kg</td>
</tr>
<tr>
<td></td>
<td>Yes.</td>
<td>The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.</td>
</tr>
<tr>
<td></td>
<td>No.</td>
<td>The environmentally hazardous substance mark may appear if required by other transportation regulations. <strong>Passenger and Cargo Aircraft</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quantity limitation: 25 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Cargo Aircraft Only</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quantity limitation: 100 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Limited Quantities - Passenger Aircraft</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quantity limitation: 1 kg</td>
</tr>
</tbody>
</table>

*8/11*
Section 14. Transport information

**Special precautions for user**: Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**: Not available.

Section 15. Regulatory information

**U.S. Federal regulations**: TSCA 8(a) CDR Exempt/Partial exemption: Not determined

**United States inventory (TSCA 8b)**: This material is listed or exempted.

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)**: Not listed

**Clean Air Act Section 602 Class I Substances**: Not listed

**Clean Air Act Section 602 Class II Substances**: Not listed

**DEA List I Chemicals (Precursor Chemicals)**: Not listed

**DEA List II Chemicals (Essential Chemicals)**: Not listed

**SARA 302/304 Composition/information on ingredients**

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>EHS</th>
<th>SARA 302 TPQ</th>
<th>SARA 304 RQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium azide</td>
<td>100</td>
<td>Yes.</td>
<td>500</td>
<td>1000</td>
</tr>
</tbody>
</table>

**SARA 304 RQ**: 1000 lbs / 454 kg

**SARA 311/312 Classification**: Immediate (acute) health hazard

**Composition/information on ingredients**

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Fire hazard</th>
<th>Sudden release of pressure</th>
<th>Reactive</th>
<th>Immediate (acute) health hazard</th>
<th>Delayed (chronic) health hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium azide</td>
<td>100</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
</tr>
</tbody>
</table>

**SARA 313**

<table>
<thead>
<tr>
<th>Product name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form R - Reporting requirements</td>
<td>26628-22-8</td>
<td>100</td>
</tr>
<tr>
<td>Supplier notification</td>
<td>26628-22-8</td>
<td>100</td>
</tr>
</tbody>
</table>

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

**State regulations**

**Massachusetts**: This material is listed.

**New York**: This material is listed.

**New Jersey**: This material is listed.

**Pennsylvania**: This material is listed.
Section 15. Regulatory information

International regulations
- Chemical Weapon Convention List Schedules I, II & III Chemicals
  Not listed.
- Montreal Protocol (Annexes A, B, C, E)
  Not listed.
- Stockholm Convention on Persistent Organic Pollutants
  Not listed.
- Rotterdam Convention on Prior Inform Consent (PIC)
  Not listed.
- UNECE Aarhus Protocol on POPs and Heavy Metals
  Not listed.

Canada
- WHMIS (Canada) : Class D-1A: Material causing immediate and serious toxic effects (Very toxic).

Canadian lists
- Canadian NPRI : This material is not listed.
- CEPA Toxic substances : This material is not listed.
- Canada inventory : This material is listed or exempted.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Physical hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Instability/Reactivity</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

History
- Date of issue/Date of revision : 04/28/2015.
- Date of previous issue : 04/20/2015.
- Version : 2

Key to abbreviations
- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader
Section 16. Other information

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.