Material Safety Data Sheet

1. Product and company identification

<table>
<thead>
<tr>
<th>Product name</th>
<th>Methoxyamine HCl in Pyridine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplier</td>
<td>Thermo Fisher Scientific</td>
</tr>
<tr>
<td></td>
<td>320 Rolling Ridge Drive</td>
</tr>
<tr>
<td></td>
<td>Penn Eagle Industrial Park</td>
</tr>
<tr>
<td></td>
<td>Bellefonte, PA 16823</td>
</tr>
<tr>
<td></td>
<td>814.353.2300 (P)</td>
</tr>
<tr>
<td></td>
<td>814.353.0140 (F)</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Thermo Fisher Scientific</td>
</tr>
<tr>
<td></td>
<td>Pierce Biotechnology</td>
</tr>
<tr>
<td></td>
<td>P.O. Box 117</td>
</tr>
<tr>
<td></td>
<td>Rockford, IL 61105</td>
</tr>
<tr>
<td></td>
<td>United States</td>
</tr>
<tr>
<td></td>
<td>815.968.0747 or</td>
</tr>
<tr>
<td></td>
<td>800.874.3723</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product No.</th>
<th>TS-45950</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSDS #</td>
<td>0466</td>
</tr>
<tr>
<td>Validation date</td>
<td>10/20/2009.</td>
</tr>
<tr>
<td>Print date</td>
<td>10/20/2009.</td>
</tr>
<tr>
<td>Responsible name</td>
<td>MSDS (Regulatory Affairs)</td>
</tr>
</tbody>
</table>

In case of emergency

Use of Substance/Preparation

Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific applications.

2. Hazards identification

Physical state          : Liquid.
OSHA/HCS status         : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Emergency overview      : DANGER!

FLAMMABLE LIQUID AND VAPOR. CAUSES RESPIRATORY TRACT, EYE AND SKIN BURNS. HARMFUL IF INHALED. MAY CAUSE ALLERGIC RESPIRATORY AND SKIN REACTION. MAY BE HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.

Flammable liquid. Toxic by inhalation. Corrosive to the eyes, skin and respiratory system. Causes burns. Harmful in contact with skin and if swallowed. May cause sensitization by inhalation and skin contact. Keep away from heat, sparks and flame. Avoid exposure - obtain special instructions before use. Do not breathe vapor or mist. Do not ingest. Do not get in eyes or on skin or clothing. Contains material that can cause target organ damage. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

Routes of entry          : Dermal contact. Eye contact. Inhalation. Ingestion.
Potential acute health effects

Inhalation               : Toxic by inhalation. Corrosive to the respiratory system. May cause sensitization by inhalation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Ingestion                : Harmful if swallowed. May cause burns to mouth, throat and stomach.
**Methoxyamine HCl in Pyridine**

## 2. Hazards identification

**Skin**
- Corrosive to the skin. Causes burns. Harmful in contact with skin. May cause sensitization by skin contact.

**Eyes**
- Corrosive to eyes. Causes burns.

### Potential chronic health effects

**Chronic effects**
- Contains material that can cause target organ damage.

**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.

**Target organs**
- Contains material which causes damage to the following organs: kidneys, the nervous system, liver, mucous membranes, peripheral nervous system, gastrointestinal tract, upper respiratory tract, skin, eyes, central nervous system (CNS).
- Contains material which may cause damage to the following organs: blood, lungs, digestive system.

### Over-exposure signs/symptoms

**Inhalation**
- Adverse symptoms may include the following:
  - Respiratory tract irritation
  - Coughing
  - Wheezing and breathing difficulties
  - Asthma

**Ingestion**
- Adverse symptoms may include the following:
  - Stomach pains

**Skin**
- Adverse symptoms may include the following:
  - Pain or irritation
  - Redness
  - Blistering may occur

**Eyes**
- Adverse symptoms may include the following:
  - Pain
  - Watering
  - Redness

### Pre-existing respiratory, skin and digestive disorders and disorders involving any other target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

The preparation is classified as dangerous according to Directive 1999/45/EC and its amendments.

**Classification**
- F; R11
- Xn; R20/21/22

**Physical/chemical hazards**
- Highly flammable.

**Human health hazards**
- Harmful by inhalation, in contact with skin and if swallowed.

See toxicological information (section 11)
3. Composition/information on ingredients

**United States**

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>pyridine</td>
<td>110-86-1</td>
<td>95 - 98</td>
</tr>
<tr>
<td>methoxyammonium chloride</td>
<td>593-56-6</td>
<td>1 - 3</td>
</tr>
</tbody>
</table>

**Europe**

<table>
<thead>
<tr>
<th>Substance/preparation</th>
<th>Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingredient name</td>
<td>CAS number</td>
</tr>
<tr>
<td>pyridine</td>
<td>110-86-1</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>methoxyammonium</td>
<td>593-56-6</td>
</tr>
<tr>
<td>chloride</td>
<td></td>
</tr>
</tbody>
</table>

There are no ingredients or 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.

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

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

4. First aid measures

**Inhalation**: Get medical attention immediately. Move exposed person to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest. 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. 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. In the event of any complaints or symptoms, avoid further exposure.

**Ingestion**: Get medical attention immediately. Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. 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. Chemical burns must be treated promptly by a physician. 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. 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. In the event of any complaints or symptoms, avoid further exposure.

**Skin contact**: Get medical attention immediately. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Methoxyamine HCl in Pyridine

4. First aid measures

**Eye contact**: Get medical attention immediately. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Chemical burns must be treated promptly by a physician.

**Protection of first-aiders**: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing or wear gloves.

See section 11 for more detailed information on health effects and symptoms.

5. Fire-fighting measures

**Flammability of the product**: Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

**Extinguishing media**

Suitable: Use dry chemical, CO₂, water spray (fog) or foam.

Not suitable: Do not use water jet.

**Special exposure hazards**: 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Hazardous combustion products**: Decomposition products may include the following materials:
- carbon oxides
- nitrogen oxides
- halogenated compounds

**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.

6. Accidental release measures

**Personal precautions**: 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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

**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).

**Large spill**: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.
Methoxyamine HCl in Pyridine

6. Accidental release measures

Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

7. Handling and storage

Handling: Put on appropriate personal protective equipment (see section 8). 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. Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage: Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). Store in accordance with local regulations. Store in a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing materials. 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.

8. Exposure controls/personal protection

<table>
<thead>
<tr>
<th>Product name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>ACGIH (United States, 0/1994). TWA: 16 mg/m³ TWA: 16 mg/m³</td>
</tr>
<tr>
<td>pyridine</td>
<td>NIOSH (United States, 0/1994). TWA: 5 ppm TWA: 15 mg/m³ STEL: 33 mg/m³</td>
</tr>
<tr>
<td></td>
<td>OSHA (United States, 0/1989). TWA: 5 ppm CEIL: 60 ppm TWA: 15 mg/m³</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV (United States, 1/2007). TWA: 1 ppm 8 hour(s).</td>
</tr>
<tr>
<td></td>
<td>NIOSH REL (United States, 12/2001). TWA: 15 mg/m³ 10 hour(s). TWA: 5 ppm 10 hour(s).</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 11/2006). TWA: 15 mg/m³ 8 hour(s).</td>
</tr>
</tbody>
</table>
## Methoxyamine HCl in Pyridine

### 8. Exposure controls/personal protection

**TWA**: 5 ppm 8 hour(s).
**OSHA PEL 1989 (United States, 3/1989)**.
TWA: 15 mg/m³ 8 hour(s).
TWA: 5 ppm 8 hour(s).

**Europe**
**pyridine**

**EU OEL (Europe, 5/2006). Notes: Indicative**
8 hours: 15 mg/m³ 8 hour(s).
8 hours: 5 ppm 8 hour(s).

Consult local authorities for acceptable exposure limits.

#### Recommended monitoring procedures
- If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

#### Engineering measures
- Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

#### Hygiene measures
- 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.

#### Personal protection

**Respiratory**
- Use a properly fitted, air-purifying or air-fed 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.

**Hands**
- 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.

**Eyes**
- 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.

**Skin**
- 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.

**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.
9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>Closed cup: 20°C (68°F)</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless.</td>
</tr>
<tr>
<td>Solubility</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
</tr>
</tbody>
</table>

10. Stability and reactivity

- **Chemical stability**: The product is stable. Under normal conditions of storage and use, hazardous polymerization will not occur.
- **Conditions to avoid**: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
- **Incompatible materials**: Reactive or incompatible with the following materials: oxidizing materials
- **Hazardous decomposition products**: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- **Possibility of hazardous reactions**: Will not occur.

11. Toxicological information

**United States**

- **Acute toxicity**
  - **Result**
    - LD50 Dermal: Rabbit
    - LD50: Rat
    - Intrapertitoneal: Rat
    - LD50 Intravenous: Rat
    - LD50 Oral: Rat
    - LD50 Subcutaneous: Rat
  - **Species**: Rabbit, Rat
  - **Dose**: 1121 mg/kg, 866 mg/kg, 360 mg/kg, 891 mg/kg, 866 mg/kg
  - **Exposure**: -

  **Conclusion/Summary**: Not available.

- **Chronic toxicity**
  **Conclusion/Summary**: Not available.

- **Carcinogenicity**
  **Conclusion/Summary**: Not available.

- **Classification**
  - **Product/ingredient name**: pyridine
  - **ACGIH**
    - A3
  - **IARC**
    - 3
  - **EPA**
    - -
  - **NIOSH**
    - None.
  - **NTP**
    - -
  - **OSHA**
    - -

- **Mutagenicity**
  - **Product/ingredient name**: methoxyammonium chloride
  - **Test**: -
  - **Experiment**: Mammalian-Animal; Somatic
  - **Result**: Positive

  **Conclusion/Summary**: Not available.

- **Teratogenicity**
  **Conclusion/Summary**: Not available.

- **Reproductive toxicity**
  **Conclusion/Summary**: Not available.
Methoxyamine HCl in Pyridine

11. Toxicological information

Europe

<table>
<thead>
<tr>
<th>Effect</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic effects</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Teratogenicity</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Developmental effects</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Fertility effects</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

12. Ecological information

United States

Environmental effects : No known significant effects or critical hazards.

Aquatic ecotoxicity

Conclusion/Summary : Not available.

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

13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste. Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

<table>
<thead>
<tr>
<th>Regulatory information</th>
<th>UN number</th>
<th>Proper shipping name</th>
<th>Classes</th>
<th>PG*</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT Classification</td>
<td>UN2924</td>
<td>Flammable liquid, corrosive, n.o.s. (pyridine, methoxyammonium chloride)</td>
<td>3 (8)</td>
<td>II</td>
</tr>
<tr>
<td>IATA-DGR Class</td>
<td>UN2924</td>
<td>FLAMMABLE LIQUID, CORROSIVE, N.O.S. (pyridine, methoxyammonium chloride)</td>
<td>3 (8)</td>
<td>-</td>
</tr>
</tbody>
</table>

PG* : Packing group
Methoxyamine HCl in Pyridine

15. Regulatory information

**United States**

**HCS Classification**
- Flammable liquid
- Toxic material
- Corrosive material
- Sensitizing material
- Target organ effects

**U.S. Federal regulations**
- **WARNING:** This product contains a chemical known to the State of California to cause cancer.

**United States inventory** (TSCA 8b): All components are listed or exempted.
- TSCA 8(d) H and S data reporting: pyridine: 1982

**SARA 302/304/311/312 extremely hazardous substances:** No products were found.
**SARA 302/304 emergency planning and notification:** No products were found.
**SARA 302/304/312 hazardous chemicals:** pyridine; methoxyammonium chloride

**SARA 311/312 MSDS distribution - chemical inventory - hazard identification:**
- pyridine: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard;
- methoxyammonium chloride: Immediate (acute) health hazard

**Clean Water Act (CWA) 307:** No products were found.
**Clean Water Act (CWA) 311:** No products were found.
**Clean Air Act (CAA) 112 accidental release prevention:** No products were found.
**Clean Air Act (CAA) 112 regulated flammable substances:** No products were found.
**Clean Air Act (CAA) 112 regulated toxic substances:** No products were found.

**SARA 313**

<table>
<thead>
<tr>
<th>Form R - Reporting requirements</th>
<th>Product name</th>
<th>CAS number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplier notification</td>
<td>pyridine</td>
<td>110-86-1</td>
<td>95 - 98</td>
</tr>
</tbody>
</table>

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

**California Prop. 65**

**WARNING:** This product contains a chemical known to the State of California to cause cancer.

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Cancer</th>
<th>Reproductive</th>
<th>No significant risk level</th>
<th>Maximum acceptable dosage level</th>
</tr>
</thead>
<tbody>
<tr>
<td>pyridine</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
</tbody>
</table>

**Canada**

**WHMIS (Canada)**
- Class B-2: Flammable liquid
- Class D-2B: Material causing other toxic effects (Toxic)
- Class E: Corrosive material

**Canadian lists**
- **CEPA Toxic substances:** None of the components are listed.
- **Canadian ARET:** None of the components are listed.
- **Canadian NPRI:** The following components are listed: Pyridine
- **Alberta Designated Substances:** None of the components are listed.
- **Ontario Designated Substances:** None of the components are listed.
- **Quebec Designated Substances:** None of the components are listed.

**Canada inventory**
- **Canada inventory:** All components are listed or exempted.

**EU regulations**

10/20/2009.
**Methoxyamine HCl in Pyridine**

**15. Regulatory information**

**Hazard symbol or symbols:**

- ![](flame.png) Highly flammable, Harmful

**Risk phrases:**

- R11- Highly flammable.
- R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.

**Safety phrases:**

- S36/37- Wear suitable protective clothing and gloves.

**International regulations**

**International lists:**

- **Australia inventory (AICS):** All components are listed or exempted.
- **China inventory (IECSC):** Not determined.
- **Korea inventory (KECI):** All components are listed or exempted.
- **Philippines inventory (PICCS):** All components are listed or exempted.
- **Japan inventory (ENCS):** All components are listed or exempted.

**16. Other information**

**Label requirements:**

- **FLAMMABLE LIQUID AND VAPOR. CAUSES RESPIRATORY TRACT, EYE AND SKIN BURNS. HARMFUL IF INHALED. MAY CAUSE ALLERGIC RESPIRATORY AND SKIN REACTION. MAY BE HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.**

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

- **Health:** 3
- **Flammability:** 4
- **Physical hazards:** 0

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

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

- **Flammability:** 4
- **Health:** 3
- **Instability:** 0
- **Special:**

**Date of printing:** 10/20/2009.
**Date of issue:** 10/20/2009.
**Date of previous issue:** No previous validation.
**Version:** 1

- Icon indicates information that has changed from previously issued version.

**Full text of R-phrases referred to in sections 2 and 3 - Europe**

- **R11-** Highly flammable.
- **R20/21/22-** Harmful by inhalation, in contact with skin and if swallowed.
- **R34-** Causes burns.
16. Other information

Full text of classifications referred to in sections 2 and 3 - Europe:

- F - Highly flammable
- C - Corrosive
- Xn - Harmful

Notice to reader

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.

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.