1. Product and company identification

Product name: Electro-Wash® PX
Supplier: Chemtronics
8125 Cobb Center Drive
Kennesaw, GA 30152
Tel. 770-424-4888 or toll free 800-645-5244

Synonym: ES1210 (NSN 6850-01-393-9054), ES810, ES1210A, ES1210C, ES810BC
Trade name: Electro-Wash® PX
Manufacturer: Chemtronics
8125 Cobb Center Drive
Kennesaw, GA 30152
Tel. 770-424-4888 or toll free 800-645-5244

Code: ES810, ES1210A, ES1210
MSDS #: 0213
Validation date: 5/2/2014.
Print date: 5/2/2014.

In case of emergency: Chemtrec - 1-800-424-9300 or collect 703-527-3887 24/7

Product type: Aerosol.

2. Hazards identification

Emergency overview

Physical state: Liquid. [Aerosol.]
Color: Clear.
Odor: Characteristic.
Signal word: DANGER!

Hazard statements: EXTREMELY FLAMMABLE AEROSOL. CAUSES EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE. CANCER HAZARD - CONTAINS MATERIAL WHICH CAN CAUSE CANCER.

Precautionary measures: Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Do not breathe vapor or mist. Do not eat, drink or smoke when using this product. Avoid contact with eyes, skin and clothing. Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Wash thoroughly after handling.

OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential acute health effects

Inhalation: Harmful if inhaled. At very high concentrations, can displace the normal air and cause suffocation from lack of oxygen.

Ingestion: Harmful if swallowed. Aspiration hazard if swallowed. Can enter lungs and cause damage. Irritating to mouth, throat and stomach.

Skin: Irritating to skin.

Eyes: Severely irritating to eyes. Risk of serious damage to eyes.

Potential chronic health effects

5/2/2014. 0213
2. Hazards identification

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

**Carcinogenicity**: Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure.

**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: the nervous system, eye, lens or cornea. Contains material which may cause damage to the following organs: blood, kidneys, lungs, the reproductive system, liver, spleen, peripheral nervous system, cardiovascular system, upper respiratory tract, skin, central nervous system (CNS).

### Over-exposure signs/symptoms

**Inhalation**: Adverse symptoms may include the following:
- respiratory tract irritation
- coughing
- dizziness/vertigo
- drowsiness/fatigue
- headache

**Ingestion**: Adverse symptoms may include the following:
- Adverse symptoms may include the following:
- nausea or vomiting

**Skin**: Adverse symptoms may include the following:
- irritation
- redness

**Eyes**: Adverse symptoms may include the following:
- pain or irritation
- watering
- redness

**Medical conditions aggravated by over-exposure**: Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethanol</td>
<td>64-17-5</td>
<td>10 - 20</td>
</tr>
<tr>
<td>1,1-difluoroethane</td>
<td>75-37-6</td>
<td>5 - 25</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>67-63-0</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>124-38-9</td>
<td>1 - 5</td>
</tr>
<tr>
<td>propyl acetate</td>
<td>109-60-4</td>
<td>1 - 3</td>
</tr>
<tr>
<td>n-hexane</td>
<td>110-54-3</td>
<td>0.1 - 3</td>
</tr>
</tbody>
</table>

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.
4. First aid measures

**Eye contact**
- Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

**Skin contact**
- In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

**Inhalation**
- Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

**Ingestion**
- Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

**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 it, or wear gloves.

**Notes to physician**
- No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

**Flammability of the product**
- Extremely flammable aerosol. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. Runoff to sewer may create fire or explosion hazard.

**Extinguishing media**
- **Suitable**
  - Use an extinguishing agent suitable for the surrounding fire.
- **Not suitable**
  - None known.

**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 thermal decomposition products**
- Decomposition products may include the following materials: carbon dioxide, carbon monoxide, halogenated compounds, carbonyl halides.

**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. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. 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).

5/2/2014. 0213
6. Accidental release measures

**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 for cleaning up**

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

**Large spill**: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spills 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). 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.

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. Remove contaminated clothing and protective equipment before entering eating areas. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing gas. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use 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. Empty containers retain product residue and can be hazardous.

**Storage**: Store in accordance with local regulations. Store in a segregated and approved area. Store away 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. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethanol</td>
<td>ACGIH TLV (United States, 6/2013). STEL: 1000 ppm 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>NIOSH REL (United States, 4/2013). TWA: 1900 mg/m³ 10 hours.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 2/2013). TWA: 1900 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL 1989 (United States, 3/1989). TWA: 1900 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>1,1-difluoroethane</td>
<td>AIHA WEEL (United States, 10/2011). TWA: 1000 ppm 8 hours.</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>ACGIH TLV (United States, 6/2013). STEL: 400 ppm 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>NIOSH REL (United States, 4/2013). TWA: 200 ppm 8 hours.</td>
</tr>
</tbody>
</table>

5/2/2014.
### 8. Exposure controls/personal protection

<table>
<thead>
<tr>
<th>Substance</th>
<th>STEL: 1225 mg/m³ 15 minutes.</th>
<th>STEL: 500 ppm 15 minutes.</th>
<th>TWA: 980 mg/m³ 10 hours.</th>
<th>TWA: 400 ppm 10 hours.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Carbon dioxide</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STEL: 54000 mg/m³ 15 minutes.</td>
<td></td>
<td>STEL: 30000 ppm 15 minutes.</td>
<td>TWA: 9000 mg/m³ 8 hours.</td>
<td>TWA: 5000 ppm 8 hours.</td>
</tr>
<tr>
<td>STEL: 54000 mg/m³ 15 minutes.</td>
<td></td>
<td>STEL: 30000 ppm 15 minutes.</td>
<td>TWA: 9000 mg/m³ 10 hours.</td>
<td>TWA: 5000 ppm 10 hours.</td>
</tr>
<tr>
<td><strong>Propyl acetate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STEL: 1040 mg/m³ 15 minutes.</td>
<td></td>
<td>STEL: 250 ppm 15 minutes.</td>
<td>TWA: 835 mg/m³ 8 hours.</td>
<td>TWA: 200 ppm 8 hours.</td>
</tr>
<tr>
<td><strong>n-Hexane</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWA: 840 mg/m³ 8 hours.</td>
<td></td>
<td>TWA: 200 ppm 8 hours.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ACGIH TLV</strong> (United States, 6/2013). Oxygen Depletion** [Asphyxiant].</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OSHA PEL</strong> (United States, 2/2013).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ACGIH TLV</strong> (United States, 6/2013). Absorbed through skin.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>NIOSH REL</strong> (United States, 4/2013).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OSHA PEL</strong> (United States, 2/2013).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5/2/2014.
Electro-Wash® PX

8. Exposure controls/personal protection

TWA: 180 mg/m³ 8 hours.
TWA: 50 ppm 8 hours.

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. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

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. 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.

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 or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

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.
When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

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

Physical state: Liquid. [Aerosol.]
Flash point: -29 C
Color: Clear.
Odor: Characteristic.
Boiling/condensation point: Weighted average: 79.27°C (174.7°F)
Melting/freezing point: Weighted average: -108.7°C (-163.7°F)
Relative density: 0.7

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9. Physical and chemical properties

**Vapor pressure**: 26.4 kPa (198 mm Hg) [room temperature]
**Vapor density**: 3
**Evaporation rate**: <1

**Aerosol product**
- **Type of aerosol**: Spray
- **Heat of combustion**: 3.468 kJ/g

10. Stability and reactivity

**Chemical stability**: The product is stable.
**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. Do not spray on a naked flame or any incandescent material. Open flames, sparks and static discharge

**Incompatible materials**: Reactive or incompatible with the following materials: Strong oxidizing materials, Alkaline metals, alkalis

**Hazardous decomposition products**: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**Possibility of hazardous reactions**: Under normal conditions of storage and use, hazardous reactions will not occur.

11. Toxicological information

**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>ethanol</td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>124700 mg/m³</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>7 g/kg</td>
<td></td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>12800 mg/kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>5000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>propyl acetate</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>9370 mg/kg</td>
<td></td>
</tr>
<tr>
<td>n-hexane</td>
<td>LC50 Inhalation Gas.</td>
<td>Rat</td>
<td>48000 ppm</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>15840 mg/kg</td>
<td></td>
</tr>
</tbody>
</table>

**Conclusion/Summary**
- Not available.

**Chronic toxicity**
- Not available.

**Irritation/Corrosion**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethanol</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>0.066666667 minutes 100 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>100 microliters 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>400 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 20 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 100 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>10 milligrams</td>
<td>-</td>
</tr>
</tbody>
</table>
11. Toxicological information

**Classification**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>OSHA</th>
<th>IARC</th>
<th>NTP</th>
<th>ACGIH</th>
<th>EPA</th>
<th>NIOSH</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethanol</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>A3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>A4</td>
<td>-</td>
<td>None.</td>
</tr>
<tr>
<td>propyl acetate</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>None.</td>
</tr>
</tbody>
</table>

**Mutagenicity**

Conclusion/Summary : Not available.

**Teratogenicity**

Conclusion/Summary : Not available.

**Reproductive toxicity**

Conclusion/Summary : Not available.

**Conclusion/Summary** : Not available.

**Sensitizer**

Conclusion/Summary : Not available.

**Carcinogenicity**

Conclusion/Summary : Not available.

**Ecological information**

**Ecotoxicity**

: No known significant effects or critical hazards.

**Aquatic ecotoxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethanol</td>
<td>Acute EC50 17.921 mg/l Marine water Acute EC50 2000 µg/l Fresh water Acute LC50 25500 µg/l Marine water Acute LC50 42000 µg/l Fresh water Chronic NOEC 4.995 mg/l Marine water Chronic NOEC 0.375 ul/L Fresh water</td>
<td>Algae - Ulva pertusa Daphnia - Daphnia magna Crustaceans - Artemia franciscana - Larvae Fish - Oncorhynchus mykiss Algae - Ulva pertusa Fish - Gambusia holbrooki - Larvae Crustaceans - Crangon crangon</td>
<td>96 hours 48 hours 48 hours 4 days 96 hours 12 weeks 48 hours</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>Acute LC50 1400000 to 1950000 µg/l Marine water</td>
<td>Fish - Gambusia affinis Fish - Pimephales promelas</td>
<td>96 hours 96 hours</td>
</tr>
<tr>
<td>propyl acetate</td>
<td>Acute LC50 1400000 µg/l</td>
<td>Fish - Oreochromis mossambicus</td>
<td>96 hours</td>
</tr>
<tr>
<td>n-hexane</td>
<td>Acute LC50 1130000 µg/l Fresh water</td>
<td>96 hours</td>
<td></td>
</tr>
</tbody>
</table>

**Persistence/degradability**

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. 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. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

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>
<th>Label</th>
<th>Additional information</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT Classification</td>
<td></td>
<td>Consumer commodity ORM-D</td>
<td>ORM-D</td>
<td>-</td>
<td></td>
<td>Use ORM-D Label</td>
</tr>
<tr>
<td>TDG Classification</td>
<td></td>
<td>Consumer commodity ORM-D</td>
<td>ORM-D</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mexico Classification</td>
<td></td>
<td>Consumer commodity ORM-D</td>
<td>ORM-D</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADR/RID Class</td>
<td>UN1950</td>
<td>Aerosol. Flammable</td>
<td>2.1</td>
<td>-</td>
<td></td>
<td>Tunnel code (D)</td>
</tr>
<tr>
<td>IMDG Class</td>
<td>1950</td>
<td>Aerosols, flammable</td>
<td>2.1</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IATA-DGR Class</td>
<td>1950</td>
<td>Aerosol. Flammable</td>
<td>2.1</td>
<td>-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PG* : Packing group

15. Regulatory information

**HCS Classification**: Flammable aerosol

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

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)**: Listed

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

Clean Air Act (CAA) 112 regulated flammable substances: 1,1-difluoroethane
### 15. Regulatory information

**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**

No products were found.

**SARA 304 RQ**
- Not applicable.

**SARA 311/312**

**Classification**
- Fire hazard
  - Immediate (acute) health hazard
  - Delayed (chronic) 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>
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</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>1,1-difluoroethane</td>
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<tr>
<td>Isopropyl alcohol</td>
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<tr>
<td>Carbon dioxide</td>
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<tr>
<td>Propyl acetate</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>n-hexane</td>
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</table>

**SARA 313**

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<tr>
<th>Product name</th>
<th>CAS number</th>
<th>%</th>
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<tbody>
<tr>
<td>Form R - Reporting requirements</td>
<td>67-63-0</td>
<td>1 - 5</td>
</tr>
<tr>
<td></td>
<td>110-54-3</td>
<td>0.1 - 3</td>
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<tr>
<td>Supplier notification</td>
<td>67-63-0</td>
<td>1 - 5</td>
</tr>
<tr>
<td></td>
<td>110-54-3</td>
<td>0.1 - 3</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.

**State regulations**

**Massachusetts**
- The following components are listed: ETHYL ALCOHOL; DIFLUOROETHANE; ISOPROPYL ALCOHOL; CARBON DIOXIDE; N-PROPYL ACETATE; HEXANE

**New York**
- The following components are listed: Hexane

**New Jersey**
- The following components are listed: ETHYL ALCOHOL; ALCOHOL; 1, 1-DIFLUOROETHANE; ETHANE, 1,1-DIFLUORO--; ISOPROPYL ALCOHOL; 2-PROPANOL; CARBON DIOXIDE; CARBONIC ACID GAS; n-PROPYL ACETATE; ACETIC ACID, PROPYL ESTER; n-HEXANE; HEXANE

**Pennsylvania**
- The following components are listed: DENATURED ALCOHOL; 2-PROPANOL; CARBON DIOXIDE; ACETIC ACID, PROPYL ESTER; HEXANE

**Canada inventory**
- All components are listed or exempted.
15. Regulatory information

**International lists**

- **Australia inventory (AICS):** All components are listed or exempted.
- **China inventory (IECSC):** All components are listed or exempted.
- **Japan inventory:** Not determined.
- **Korea inventory:** All components are listed or exempted.
- **Malaysia Inventory (EHS Register):** Not determined.
- **New Zealand Inventory of Chemicals (NZIoC):** All components are listed or exempted.
- **Philippines inventory (PICCS):** All components are listed or exempted.
- **Taiwan inventory (CSNN):** Not determined.

**Chemical Weapons Convention List Schedule I Chemicals**

- Not listed

**Chemical Weapons Convention List Schedule II Chemicals**

- Not listed

**Chemical Weapons Convention List Schedule III Chemicals**

- Not listed

16. Other information

**Label requirements**

- EXTREMELY FLAMMABLE AEROSOL. CAUSES EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE. CANCER HAZARD - CONTAINS MATERIAL WHICH CAN CAUSE CANCER.

**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>1</td>
<td>3</td>
<td>1</td>
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</tbody>
</table>

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

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>
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</thead>
<tbody>
<tr>
<td>1</td>
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</table>

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**Date of printing**

5/2/2014.
## 16. Other information

<table>
<thead>
<tr>
<th>Date of issue</th>
<th>5/2/2014.</th>
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<tbody>
<tr>
<td>Date of previous issue</td>
<td>5/1/2014.</td>
</tr>
<tr>
<td>Version</td>
<td>3</td>
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<td>Prepared by</td>
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▶ Indicates information that has changed from previously issued version.

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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.