1. Product and Company Identification

Product number: 010-003
Product name: Disinfectant Spray for Hospital Use
Effective date: 24-Feb-2012
Company information:
Claire Manufacturing Co.
1005 S. Westgate Drive
Addison, IL 60101 United States
Company phone: 1-630-543-7600
Emergency telephone US: 1-866-836-8855
Emergency telephone outside US: 1-952-852-4646
Version #: 10
Supersedes date: 02-Sep-2011
Product use: Disinfectant

2. Hazards Identification

Emergency overview:
Aerosol. FLAMMABLE CONTENTS UNDER PRESSURE. Will be easily ignited by heat, spark or flames. Contact with eyes may cause irritation. Prolonged exposure may cause chronic effects.

Potential health effects:
- Routes of exposure: Eye contact. Skin contact. Ingestion.
- Eyes: Moderately irritating to the eyes.
- Skin: Harmful if absorbed through the skin. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
- Inhalation: Intentional misuse by concentrating and inhaling the product can be harmful or fatal. Prolonged inhalation may be harmful.
- Ingestion: Exposure by ingestion of an aerosol is unlikely. May cause delayed lung damage. Components of the product may be absorbed into the body by ingestion.
- Target organs: Central nervous system. Lungs.
- Chronic effects: Unconsciousness. Cyanosis (blue tissue condition, nails, lips, and/or skin). May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. May cause delayed lung injury.

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Alcohol</td>
<td>64-17-5</td>
<td>40 - 50</td>
</tr>
<tr>
<td>n-Butane</td>
<td>106-97-8</td>
<td>15 - 20</td>
</tr>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>5 - 8</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>1 - 3</td>
</tr>
<tr>
<td>Non-hazardous and other components below reportable levels</td>
<td>20 - 40</td>
<td></td>
</tr>
</tbody>
</table>

4. First Aid Measures

First aid procedures:
- Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or Poison Control Center immediately.
- Skin contact: Take off immediately all contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
5. Fire Fighting Measures

Flammable properties
Vapor or gas may spread to distant ignition sources and flash back. Runoff to sewer may cause fire or explosion hazard.

Extinguishing media
Foam. Dry chemical. Carbon dioxide (CO2).

Protection of firefighters
In case of fire and/or explosion do not breathe fumes. Containers should be cooled with water to prevent vapor pressure build up.

6. Accidental Release Measures

Methods for containment
Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Stop the flow of material, if this is without risk.

Methods for cleaning up
Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

7. Handling and Storage

Handling
Pressurized container: Do not pierce or burn, even after use. Do not smoke while using or until sprayed surface is thoroughly dry. Use only in area provided with appropriate exhaust ventilation. Do not use if spray button is missing or defective. Do not re-use empty containers. Do not get this material in contact with eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin.

Storage
Contents under pressure. Do not puncture, incinerate or crush. The pressure in sealed containers can increase under the influence of heat. Do not handle or store near an open flame, heat or other sources of ignition. Avoid exposure to long periods of sunlight. Store in cool place. Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs. Level 2 Aerosol.

8. Exposure Controls / Personal Protection

Exposure limits

<table>
<thead>
<tr>
<th>ACGIH Components</th>
<th>CAS #</th>
<th>TWA</th>
<th>STEL</th>
<th>Ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Alcohol</td>
<td>64-17-5</td>
<td>1000 ppm</td>
<td>1000 ppm</td>
<td>Not established</td>
</tr>
<tr>
<td>n-Butane</td>
<td>106-97-8</td>
<td>1000 ppm</td>
<td>Not established</td>
<td>Not established</td>
</tr>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>1000 ppm</td>
<td>Not established</td>
<td>Not established</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>200 ppm</td>
<td>250 ppm</td>
<td>Not established</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OSHA Components</th>
<th>CAS #</th>
<th>TWA</th>
<th>STEL</th>
<th>Ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Alcohol</td>
<td>64-17-5</td>
<td>1000 ppm</td>
<td>Not established</td>
<td>Not established</td>
</tr>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>1000 ppm</td>
<td>Not established</td>
<td>Not established</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>200 ppm</td>
<td>Not established</td>
<td>Not established</td>
</tr>
</tbody>
</table>

Personal protective equipment

Eye / face protection
Do not get in eyes. Chemical goggles are recommended.

Skin protection
Chemical resistant gloves.

Respiratory protection
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

9. Physical & Chemical Properties

Appearance
Compressed liquefied gas.

Product name: Disinfectant Spray for Hospital Use
Product #: 010-003        Revision date: 24-FEB-2012    Print date: 24-FEB-2012
Boiling point
141.8 °F (61.1 °C) estimated
Color
colorless
Density
0.7516 g/cm3 estimated
Flammability (HOC)
25.0491 KJ/g estimated
Flash back
Yes
Flash point
-156 °F (-104.4 °C) Propellant
Form
Aerosol.
Freezing point
Not available
Odor
fruity alcoholic
pH
9.5 - 10.5
Physical state
Liquid.
Pressure
75 - 90 psig @ 70F
Solubility
Partially
Specific gravity
0.7517

10. Chemical Stability & Reactivity Information

Chemical stability
Stable at normal conditions.

Conditions to avoid
Heat, flames and sparks.

Hazardous decomposition products
No hazardous decomposition products are known.

11. Toxicological Information

Acute effects
Acute LC50: 81 mg/l/4h estimated, Rat, Inhalation

Component analysis - LD50

Toxicology Data - Selected LD50s and LC50s

<table>
<thead>
<tr>
<th>Substance</th>
<th>LD50 Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Alcohol</td>
<td>64-17-5</td>
<td>Oral LD50 Rat 7060 mg/kg; Inhalation LC50 Rat 124.7 mg/L 4 h</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>Inhalation LC50 Rat 83.2 mg/L 4 h; Inhalation LC50 Rat 64000 ppm 4 h; Oral LD50 Rat 5628 mg/kg; Dermal LD50 Rabbit 15800 mg/kg</td>
</tr>
<tr>
<td>n-Butane</td>
<td>106-97-8</td>
<td>Inhalation LC50 Rat 658 mg/L 4 h</td>
</tr>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>Inhalation LC50 Rat 658 mg/L 4 h</td>
</tr>
</tbody>
</table>

Sensitization
Not expected to be hazardous by OSHA criteria.

Carcinogenicity
IARC - Group 1 (Carcinogenic to Humans)
Ethyl Alcohol 64-17-5 Monograph 100E [in preparation] (in alcoholic beverages); Monograph 96 [2010] (in alcoholic beverages)

Teratogenicity
Animal experiments showed mutagenic and teratogenic effects.

12. Ecological Information

Ecotoxicity
LC50 1730 mg/L estimated, Fish, 96.00 Hours,
EC50 931 mg/L estimated, Daphnia, 48.00 Hours,
Contains a substance which causes risk of hazardous effects to the environment.

13. Disposal Considerations

Waste codes
D001: Waste Flammable material with a flash point <140 F

Disposal instructions
Contents under pressure. Dispose of this material and its container to hazardous or special waste collection point. Do not incinerate sealed containers. Do not allow this material to drain into sewers/water supplies. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose in accordance with all applicable regulations.
Department of Transportation (DOT) Requirements

Basic shipping requirements:

Proper shipping name: Aerosols
Hazard class: 2.1
UN number: UN1950

Additional information:

Special provisions: 153, N82
Packaging exceptions: LTD QTY
Packaging non bulk: None
Packaging bulk: None

Further information: Until 12/31/2013, the "Consumer Commodity - ORM-D" marking may still be used in place of the new limited quantity diamond mark for packages of UN 1950 Aerosols. Limited quantities require the limited quantity diamond mark on cartons after 12/31/13 and may be used now in place of the "Consumer Commodity ORM-D" marking but not concurrently.

IMDG

Basic shipping requirements:

Proper shipping name: AEROSOLS
Hazard class: 2.1
UN number: 1950

Additional information:

Packaging exceptions: LTD QTY
Item: 5F
Labels required: None
Transport Category: 2

IATA

Basic shipping requirements:

Proper shipping name: Aerosols, flammable
Hazard class: 2.1
UN number: 1950

Additional information:

Packaging exceptions: LTD QTY
Labels required: 2.1

15. Regulatory Information

US federal regulations
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. Pesticides are exempt from TSCA.

U.S. - CERCLA/SARA - Section 313 - Emission Reporting
Methanol: 67-56-1 1.0 % de minimis concentration

Occupational Safety and Health Administration (OSHA)
29 CFR 1910.1200 hazardous chemical: Yes

CERCLA (Superfund) reportable quantity
Methanol: 5000.0000

Superfund Amendments and Reauthorization Act of 1986 (SARA)
Section 302 extremely hazardous substance: No
Section 311 hazardous chemical: Yes
Hazard categories (311/312): Immediate Hazard - Yes, Delayed Hazard - Yes, Fire Hazard - Yes, Pressure Hazard - Yes, Reactivity Hazard - No
Inventory status

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of New and Existing Chemicals (EINECS)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>No</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

State regulations

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

U.S. - Pennsylvania - RTK (Right to Know) List

- Ethyl Alcohol 64-17-5 Present
- Methanol 67-56-1 Environmental hazard
- n-Butane 106-97-8 Present
- Propane 74-98-6 Present

16. Other Information

Further information

HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings

Health: 1*
Flammability: 3
Physical hazard: 0
Personal protection:

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information in the sheet was written based on the best knowledge and experience currently available.

MSDS sections updated

- Hazards Identification: Target organs
- Hazards Identification: Main symptoms
- Transport Information: Product Shipping Name/Packing Group
- Transport Information: Further information

Prepared by

Regulatory Compliance