1. Product and Company Identification

Product number: 826-002
Product name: Grill & Oven Cleaner
Effective date: 07-Jun-2012
Company information: Claire Manufacturing Co.
1005 S. Westgate Drive
Addison, IL 60101 United States
Company phone: General Assistance 1-630-543-7600
Emergency telephone US: 1-866-836-8855
Emergency telephone outside US: 1-952-852-4646
Version #: 10
Supersedes date: 30-Jul-2010
Product use: Oven cleaner

2. Hazards Identification

Emergency overview: Aerosol. CONTENTS UNDER PRESSURE. Causes skin and eye burns. Irritating to respiratory system. Prolonged exposure may cause chronic effects.

Potential health effects:
- Routes of exposure: Eye contact. Skin contact. Ingestion.
- Eyes: Causes eye burns.
- Skin: Causes skin burns. May be harmful if absorbed through skin.
- Inhalation: Intentional misuse by concentrating and inhaling the product can be harmful or fatal. Causes burns. Irritating to respiratory system. Prolonged inhalation may be harmful.
- Ingestion: Exposure by ingestion of an aerosol is unlikely. Harmful if swallowed. Ingestion causes burns of the upper digestive and respiratory tracts. May cause delayed lung damage. Components of the product may be absorbed into the body by ingestion.

Target organs: Prolonged or repeated exposure may cause liver and kidney damage. These effects have not been observed in humans.

Central nervous system. Lungs.

Chronic effects: May be harmful if absorbed through 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. 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>Diethylene Glycol Monobutyl Ether</td>
<td>112-34-5</td>
<td>8 - 10</td>
</tr>
<tr>
<td>Sodium Hydroxide</td>
<td>1310-73-2</td>
<td>5 - 8</td>
</tr>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>1 - 3</td>
</tr>
<tr>
<td>n-Butane</td>
<td>106-97-8</td>
<td>1 - 3</td>
</tr>
<tr>
<td>Monoethanolamine</td>
<td>141-43-5</td>
<td>1 - 3</td>
</tr>
</tbody>
</table>

Non-hazardous and other components below reportable levels: 60 - 80

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. Get medical attention immediately.
- Skin contact: Immediately flush skin with plenty of water. Remove and isolate contaminated clothing and shoes. Get medical attention immediately.
Inhalation

If inhalation of gas/fume/vapor/dust/mist from the material is excessive (air concentration is greater than the TLV or health effects are noticed), immediately remove the affected person(s) to fresh air. Get medical attention if symptoms persist.

Ingestion

In the unlikely event of swallowing contact a physician or poison control center. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn’t get into the lungs.

5. Fire Fighting Measures

Flammable properties
Runoff to sewer may cause fire or explosion hazard.

Extinguishing media
Suitable extinguishing media
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Protection of firefighters
Protective equipment and precautions for 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 the flow of material, if this is without risk.
Methods for cleaning up
Should not be released into the environment.
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 skin. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid prolonged exposure.

Storage
Level 1 Aerosol.
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 away from food, drink and animal feedingstuffs. Store at ambient temperature and atmospheric pressure.

8. Exposure Controls / Personal Protection

Exposure limits

ACGIH Components CAS # TWA STEL Ceiling
Diethylene Glycol Monobutyl Ether 112-34-5 20 ppm Not established Not established
Sodium Hydroxide 1310-73-2 Not established Not established 2 mg/m3
Propane 74-98-6 1000 ppm Not established Not established
n-Butane 106-97-8 1000 ppm Not established Not established
Monoethanolamine 141-43-5 3 ppm 6 ppm Not established

OSHA Components CAS # TWA STEL Ceiling
Diethylene Glycol Monobutyl Ether 112-34-5 100 ppm Not established Not established
Sodium Hydroxide 1310-73-2 2 mg/m3 Not established Not established
Propane 74-98-6 1000 ppm Not established Not established
Monoethanolamine 141-43-5 3 ppm Not established Not established
Personal protective equipment

Skin protection  Do not get this material on clothing. Wear appropriate chemical resistant clothing. Structural firefighters protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations. Use chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent).

Respiratory protection  Do not breathe dust/fume/gas/mist/vapors/spray. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.

9. Physical & Chemical Properties

Appearance  Compressed liquefied gas.
Boiling point  386.6 °F (197.2 °C) estimated
Color  Colorless.
Density  1.009 g/cm3 estimated
Flammability (HOC)  5.7 kJ/g estimated
Flash back  No
Flash point  -156 °F (-104.4 °C) Propellant
Form  Aerosol.
Freezing point  Not available
Odor  Ammoniacal.
pH  13 - 14
Physical state  Liquid.
Pressure  85 - 105 psig @ 70F
Solubility  Completely
Specific gravity  1.0091 estimated

10. Chemical Stability & Reactivity Information

Chemical stability  Risk of ignition.
Conditions to avoid  Heat, flames and sparks.
Hazardous decomposition products  Irritants. Toxic gas.

11. Toxicological Information

Acute effects  Acute LD50: 12919 mg/kg estimated, Rat, Dermal
Component analysis - LD50

Toxicology Data - Selected LD50s and LC50s

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Rat</th>
<th>LC50 Rabbit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylene Glycol Monobutyl Ether</td>
<td>112-34-5</td>
<td>Oral LD50 Rat 3384 mg/kg; Dermal LD50 Rabbit 2700 mg/kg</td>
</tr>
<tr>
<td>Monoethanolamine</td>
<td>141-43-5</td>
<td>Oral LD50 Rat 1720 mg/kg; Dermal LD50 Rabbit 1 mL/kg; Dermal LD50 Rabbit 1025 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>
<tr>
<td>Sodium Hydroxide</td>
<td>1310-73-2</td>
<td>Dermal LD50 Rabbit 1350 mg/kg</td>
</tr>
</tbody>
</table>

Teratogenicity  Not expected to be hazardous by OSHA criteria.

12. Ecological Information

Ecotoxicity  LC50 746 mg/L estimated, Fish, 96.00 Hours,
EC50 3071 mg/L estimated, Daphnia, 48.00 Hours,
IC50 687 mg/L estimated, Algae, 72.00 Hours,
Components of this product are hazardous to aquatic life.

13. Disposal Considerations

Waste codes  D001: Waste Flammable material with a flash point <140 F
D002: Waste Corrosive material [pH <=2 or =>12.5, or corrosive to steel]

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.
14. Transport Information

Department of Transportation (DOT) 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

- **Proper shipping name**: AEROSOLS
- **Hazard class**: 2.1
- **Subsidiary hazard class**: 8
- **UN number**: 1950

**Additional information:**
- **Packaging exceptions**: LTD QTY
- **Item**: 5FC
- **Labels required**: None
- **Transport Category**: If <1L: Consumer Commodity

IATA

- **Proper shipping name**: Aerosols, flammable, containing substances in Class 8, Packing Group II
- **Hazard class**: 2.1
- **Subsidiary hazard class**: 8
- **UN number**: 1950

**Additional information:**
- **Packaging exceptions**: Forbidden
- **Labels required**: Forbidden

15. Regulatory Information

**US federal regulations**
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**U.S. - CERCLA/SARA - Section 313 - Emission Reporting**

- **Diethylene Glycol Monobutyl Ether**: 112-34-5

1.0 % de minimis concentration (applies to R-(OCH2CH2)n-OR', where n = 1, 2, or 3, R=alkyl C7 or less, or R = phenyl or alkyl substituted phenyl, R’ = H or alkyl C7 or less, or OR’ consisting of carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate, Chemical Category N230)

**Occupational Safety and Health Administration (OSHA)**

- **29 CFR 1910.1200 hazardous chemical**: Yes

**CERCLA (Superfund) reportable quantity**

- **Sodium Hydroxide**: 1000.0000

**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>Yes</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>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</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

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

- Diethylene Glycol Monobutyl Ether 112-34-5  Environmental hazard
- Monoethanolamine 141-43-5  Present
- n-Butane 106-97-8  Present
- Propane 74-98-6  Present
- Sodium Hydroxide 1310-73-2  Environmental hazard

16. Other Information

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

HMIS® ratings
Health: 3*
Flammability: 2
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
Product and Company Identification: Product Review
Transport Information: Product Shipping Name/Packing Group
Transport Information: Further information

Prepared by
Regulatory Compliance