1. Product and Company Identification

Product number: 891-004
Product name: Orange Power Heavy Duty Degreaser
Effective date: 26-Feb-2011
Company information: Claire Manufacturing Co.
1005 S. Westgate Drive
Addison, IL 60101 United States
Company phone: General Assistance 630-543-7600
Emergency telephone US: 800-424-9300
Emergency telephone outside US: 703-527-3887
Version #: 06
Supersedes date: 04-Nov-2010

2. Hazards Identification

Emergency overview: Aerosol. CONTENTS UNDER PRESSURE. Irritating to eyes.

Potential health effects:
- Routes of exposure:
  - Skin contact. Ingestion.
- Eyes:
  - Causes eye irritation.
- Skin:
  - Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
- Inhalation:
  - Intentional misuse by concentrating and inhaling the product can be harmful or fatal.
- Ingestion:
  - Exposure by ingestion of an aerosol is unlikely. Components of the product may be absorbed into the body by ingestion.

Target organs: Central nervous system.
Chronic effects:
- 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.

Signs and symptoms:
- Narcosis. Defatting of the skin. Skin irritation.

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synthetic Isoparaffinic Hydrocarbon</td>
<td>64742-47-8</td>
<td>5 - 8</td>
</tr>
<tr>
<td>n-Butane</td>
<td>106-97-8</td>
<td>3 - 5</td>
</tr>
<tr>
<td>d-Limonene</td>
<td>5989-27-5</td>
<td>3 - 5</td>
</tr>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>1 - 3</td>
</tr>
<tr>
<td>Non-hazardous and other components below reportable levels</td>
<td>80 - 90</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. Get medical attention if irritation develops and persists.
- Skin contact: Immediately take off all contaminated clothing. Wash off with warm water and soap.
- Inhalation: If symptoms develop move victim to fresh air. Get medical attention if symptoms persist.
- Ingestion: In the unlikely event of swallowing contact a physician or poison control center.
- Notes to physician: Symptoms may be delayed.
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
Suitable extinguishing media
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Protection of firefighters
Specific hazards arising from the chemical
Fire may produce irritating, corrosive and/or toxic gases.

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 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. Wear personal protective equipment. Avoid prolonged exposure.

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 1 Aerosol (NFPA 30B)

8. Exposure Controls / Personal Protection

Exposure limits

<table>
<thead>
<tr>
<th>ACGIH</th>
<th>Components</th>
<th>CAS #</th>
<th>TWA</th>
<th>STEL</th>
<th>Ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Butane</td>
<td>106-97-8</td>
<td>1000 ppm</td>
<td>Not established</td>
<td>Not established</td>
<td></td>
</tr>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>1000 ppm</td>
<td>Not established</td>
<td>Not established</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OSHA</th>
<th>Components</th>
<th>CAS #</th>
<th>TWA</th>
<th>STEL</th>
<th>Ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>1000 ppm</td>
<td>Not established</td>
<td>Not established</td>
<td></td>
</tr>
</tbody>
</table>

Personal protective equipment

| Skin protection | Wear appropriate chemical resistant clothing. Chemical resistant gloves. Not normally needed. |
| Respiratory protection | 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 | 208.4 °F (97.8 °C) estimated |
| Color | white |
| Density | 0.9369 g/cm3 estimated |
| Flammability (HOC) | 7.5153 kJ/g estimated |
| Flash point | No |
| Flash point | -156 °F (-104.4 °C) Propellant |
### 10. Chemical Stability & Reactivity Information

**Chemical stability**
Risk of ignition.

**Conditions to avoid**
Heat, flames and sparks.

**Incompatible materials**
None known.

**Hazardous decomposition products**
No hazardous decomposition products are known.

### 11. Toxicological Information

**Acute effects**
Acute LD50: 20679 mg/kg estimated, Rat, Dermal

**Component analysis - LD50**

<table>
<thead>
<tr>
<th>Component</th>
<th>Acute LD50</th>
<th>Respiratory LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>d-Limonene</td>
<td>5989-27-5</td>
<td>Oral LD50 Rat 4400 mg/kg; Dermal LD50 Rabbit &gt;2000 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>Synthetic Isoparaffinic Hydrocarbon</td>
<td>64742-47-8</td>
<td>Inhalation LC50 Rat &gt;5.2 mg/L 4 h; Oral LD50 Rat &gt;5000 mg/kg; Dermal LD50 Rabbit &gt;2000 mg/kg</td>
</tr>
</tbody>
</table>

**Sensitization**
Not expected to be hazardous by OSHA criteria.

**Teratogenicity**
Not expected to be hazardous by OSHA criteria.

### 12. Ecological Information

**Ecotoxicity**
Components of this product have been identified as having potential environmental concerns.

- LC50 521 mg/L, Fish, 96.00 Hours,
- EC50 14062 mg/L, Daphnia, 48.00 Hours,
- IC50 4512 mg/L, Algae, 72.00 Hours,

### 13. Disposal Considerations

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

**Disposal instructions**
Contents under pressure. Do not puncture, incinerate or crush. Dispose of this material and its container to hazardous or special waste collection point. If discarded, this product is considered a RCRA ignitable waste, D001.

### 14. Transport Information

**Department of Transportation (DOT) Requirements**

<table>
<thead>
<tr>
<th>Basic shipping requirements:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper shipping name</td>
</tr>
<tr>
<td>Hazard class</td>
</tr>
<tr>
<td>Subsidiary hazard class</td>
</tr>
<tr>
<td>Additional information:</td>
</tr>
<tr>
<td>Packaging exceptions</td>
</tr>
<tr>
<td>Packaging non bulk</td>
</tr>
<tr>
<td>Packaging bulk</td>
</tr>
</tbody>
</table>
IMDG

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

Additional information:
Packaging exceptions: LTD QTY
Labels required: None

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.

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

CERCLA (Superfund) reportable quantity
None

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 - No
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
n-Butane
Propane
Synthetic Isoparaffinic Hydrocarbon
74-98-6
64742-47-8

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

Health: 1
Flammability: 2
Physical hazard: 0

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. 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. 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.

MSDS sections updated

Composition / Information on Ingredients: Ingredients
Physical & Chemical Properties: Physical & Chemical Properties

Prepared by

Regulatory Compliance