United States (US)
According to OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture
OSHA HCS 2012
- Flammable Gases 1 - H220
- Compressed Gas - H280
- Simple Asphyxiant

Label elements
OSHA HCS 2012

DANGER

Hazard statements
- Extremely flammable gas - H220
- Contains gas under pressure; may explode if heated - H280
- May displace oxygen and cause rapid suffocation.

Precautionary statements
Prevention
- Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking. - P210

Response
- Leaking gas fire: Do not extinguish, unless leak can be stopped safely. - P377
- Eliminate all ignition sources if safe to do so. - P381
Storage/Disposal  ● Protect from sunlight. Store in a well-ventilated place. - P410+P403

Other hazards

Section 3 - Composition/Information on Ingredients

Substances

● Material does not meet the criteria of a substance.

Mixtures

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Identifiers</th>
<th>%</th>
<th>LD50/LC50</th>
<th>Classifications According to Regulation/Directive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon dioxide</td>
<td>CAS:124-38-9</td>
<td>0.3%</td>
<td>Inhalation-Rat LC50 • 470000 ppm 30 Minute(s)</td>
<td>OSHA HCS 2012: Press. Gas - Comp.; Simp. Asphyx.</td>
</tr>
<tr>
<td>Isobutane</td>
<td>CAS:75-28-5</td>
<td>0.1%</td>
<td>Inhalation-Rat LC50 • 658000 mg/m³ 4 Hour(s)</td>
<td>OSHA HCS 2012: Flam. Gas 1; Press Gas - Comp.; Simp. Asphyx.</td>
</tr>
<tr>
<td>Butane</td>
<td>CAS:106-97-8</td>
<td>0.1%</td>
<td>Inhalation-Rat LC50 • 658 g/m³ 4 Hour(s)</td>
<td>OSHA HCS 2012: Flam. Gas 1; Press Gas - Comp.; Simp. Asphyx.</td>
</tr>
<tr>
<td>Pentane</td>
<td>CAS:109-66-0</td>
<td>&lt; 0.1%</td>
<td>Inhalation-Rat LC50 • 364 g/m³ 4 Hour(s)</td>
<td>OSHA HCS 2012: Exposure limit(s)</td>
</tr>
<tr>
<td>Hexane</td>
<td>CAS:110-54-3</td>
<td>&lt; 0.1%</td>
<td>Inhalation-Rat LC50 • 627000 mg/m³ 3 Minute(s)</td>
<td>OSHA HCS 2012: Exposure limit(s)</td>
</tr>
<tr>
<td>2-Methylbutane (In Liquid form)</td>
<td>CAS:78-78-4</td>
<td>&lt; 0.1%</td>
<td>Inhalation-Rat LC50 • 280000 mg/m³ 4 Hour(s)</td>
<td>OSHA HCS 2012: Exposure limit(s)</td>
</tr>
<tr>
<td>2-Propanethiol, 2-methyl-</td>
<td>CAS:75-66-1</td>
<td>&lt; 30ppm</td>
<td>Ingestion/Oral-Rat LD50 • 4729 mg/kg</td>
<td>OSHA HCS 2012: Exposure limit(s)</td>
</tr>
<tr>
<td>Methyl ethyl sulfide</td>
<td>CAS:624-89-5</td>
<td>&lt; 8ppm</td>
<td>NDA</td>
<td>OSHA HCS 2012: Exposure limit(s)</td>
</tr>
<tr>
<td>Hydrogen sulfide</td>
<td>CAS:7783-06-4</td>
<td>&lt; 5ppm</td>
<td>Inhalation-Rat LC50 • 700 mg/m³ 4 Hour(s)</td>
<td>OSHA HCS 2012: Exposure limit(s)</td>
</tr>
</tbody>
</table>

All percentages provided are approximate.

Section 4: First-Aid Measures
Description of first aid measures

Inhalation
- **IF INHALED:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin
- Although exposure is unlikely, in case of contact immediately flush skin with running water. If skin irritation develops get medical advice/attention.

Eye
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If irritation develops and persists, get medical attention.

Ingestion
- Ingestion is not considered a potential route of exposure.

Most important symptoms and effects, both acute and delayed
- Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. A potential health hazard associated with this gas is anoxia.

Section 5: Fire-Fighting Measures

Extinguishing media

**Suitable Extinguishing Media**
- Dry Chemical, (Potassium Bicarbonate based *Purple K* most effective), Carbon dioxide, Water.

**Unsuitable Extinguishing Media**
- No data available

Special hazards arising from the substance or mixture

**Unusual Fire and Explosion Hazards**
- **EXTREMELY FLAMMABLE**
  - Will form explosive mixtures with air.
  - Vapors may travel to source of ignition and flash back.
  - Cylinders exposed to fire may vent and release flammable gas through pressure relief devices.
  - Containers may explode when heated.
  - Ruptured cylinders may rocket.

**Hazardous Combustion Products**
- No data available

Advice for firefighters
- Gas fires should not be extinguished unless flow of gas can be stopped. Only authorized personnel should turn off valves or attempt repairs. Fire crews should wear self-contained breathing apparatus (SCBA). Natural gas is lighter than air and will vent upward but special consideration should be given to areas that may trap or contain explosive concentrations including areas of potential migration underground or through structures. Water mist may be used to cool surrounding structures including compressed gas cylinders or tanks.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

**Personal Precautions**
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not touch or walk through spilled material. Ventilate the area before entry.

**Emergency Procedures**
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions. Stop leak if you can do it without risk. Keep unauthorized personnel away. Keep out of low areas. Stay upwind. LARGE SPILL:
Consider initial downwind evacuation for at least 800 meters (1/2 mile)

Environmental precautions

- Prevent spreading of vapors through sewers, ventilation systems and confined areas.

Methods and material for containment and cleaning up

Containment/Clean-up Measures

- All equipment used when handling the product must be grounded.
- Stop leak if you can do it without risk.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Use water spray to reduce vapors; do not put water directly on leak, spill area or inside container.
- Do not direct water at spill or source of leak.
- Isolate area until gas has dispersed.

Section 7 - Handling and Storage

Precautions for safe handling

Handling

- Keep away from heat and ignition sources – No Smoking. Take precautionary measures against static charges. All equipment used when handling the product must be grounded. Use only non-sparking tools. Use only with adequate ventilation. Ventilate closed spaces before entering. Be aware of any signs of dizziness or fatigue, especially if work is done in a poorly ventilated area; exposures to fatal concentrations of this gas mixture could occur without any significant warning symptoms, due to olfactory fatigue or oxygen deficiency. Cylinders should be firmly secured to prevent falling or being knocked-over. Use explosion-proof - electrical, ventilating and/or lighting equipment. Do not attempt to repair, adjust, or in any other way modify cylinders. If there is a malfunction or another type of operational problem, contact nearest distributor immediately. Empty containers retain product residue and can be hazardous. Do not cut, weld, puncture or incinerate container.

Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool/low-temperature, well-ventilated dry place away from heat and ignition sources. Protect cylinders against physical damage. Cylinders should be firmly secured to prevent falling or being knocked-over.

Section 8 - Exposure Controls/Personal Protection

Control parameters

<table>
<thead>
<tr>
<th>Exposure Limits/Guidelines</th>
<th>Result</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pentane</strong> (109-66-0)</td>
<td>TWAs</td>
<td>600 ppm TWA (listed under Pentane, all isomers)</td>
<td>120 ppm TWA; 350 mg/m3 TWA</td>
<td>1000 ppm TWA; 2950 mg/m3 TWA</td>
</tr>
<tr>
<td></td>
<td>Ceilings</td>
<td>Not established</td>
<td>610 ppm Ceiling (15 min); 1800 mg/m3 Ceiling (15 min)</td>
<td>Not established</td>
</tr>
<tr>
<td><strong>Hexane</strong> (110-54-3)</td>
<td>TWAs</td>
<td>50 ppm TWA</td>
<td>50 ppm TWA; 180 mg/m3 TWA</td>
<td>500 ppm TWA; 1800 mg/m3 TWA</td>
</tr>
<tr>
<td><strong>Isobutane</strong> (75-28-5)</td>
<td>STELs</td>
<td>1000 ppm STEL</td>
<td>Not established</td>
<td>Not established</td>
</tr>
<tr>
<td></td>
<td>TWAs</td>
<td>Not established</td>
<td>800 ppm TWA; 1900 mg/m3 TWA</td>
<td>Not established</td>
</tr>
<tr>
<td><strong>Butane</strong> (106-97-8)</td>
<td>STELs</td>
<td>1000 ppm STEL</td>
<td>Not established</td>
<td>Not established</td>
</tr>
<tr>
<td></td>
<td>TWAs</td>
<td>Not established</td>
<td>800 ppm TWA; 1900 mg/m3 TWA</td>
<td>Not established</td>
</tr>
<tr>
<td><strong>2-Methylbutane (In Liquid form)</strong> (78-78-4)</td>
<td>TWAs</td>
<td>600 ppm TWA (listed under Pentane, all isomers)</td>
<td>Not established</td>
<td>Not established</td>
</tr>
<tr>
<td><strong>Carbon dioxide</strong></td>
<td>TWAs</td>
<td>5000 ppm TWA</td>
<td>5000 ppm TWA; 9000 mg/m3 TWA</td>
<td>5000 ppm TWA; 9000 mg/m3 TWA</td>
</tr>
</tbody>
</table>
### Exposure controls

#### Engineering Measures/Controls
- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Use explosion-proof - electrical, ventilating and/or lighting equipment.

#### Personal Protective Equipment
- **Respiratory**
  - In case of insufficient ventilation, wear suitable respiratory equipment. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

- **Eye/Face**
  - Wear safety glasses.

- **Skin/Body**
  - Wear leather gloves when handling cylinders.

#### Environmental Exposure Controls
- Follow best practice for site management and disposal of waste. Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

### Key to abbreviations
- **ACGIH** = American Conference of Governmental Industrial Hygiene
- **NIOSH** = National Institute of Occupational Safety and Health
- **OSHA** = Occupational Safety and Health Administration
- **STEL** = Short Term Exposure Limits are based on 15-minute exposures
- **TWA** = Time-Weighted Averages are based on 8h/day, 40h/week exposures

### Section 9 - Physical and Chemical Properties

#### Information on Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Material Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Form</strong></td>
</tr>
<tr>
<td>Gas</td>
</tr>
<tr>
<td><strong>Appearance/Description</strong></td>
</tr>
<tr>
<td>Colorless, tasteless gas that has no odor or if trace amounts of sulfur compounds are added as an odorant the gas has a garlic/rotten-egg/skunk odor.</td>
</tr>
<tr>
<td><strong>Color</strong></td>
</tr>
<tr>
<td>Colorless</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
</tr>
<tr>
<td>Odorless or with trace amounts of sulfur compounds added as an odorant resulting in a garlic/rotten-egg/skunk odor.</td>
</tr>
<tr>
<td><strong>Odor Threshold</strong></td>
</tr>
<tr>
<td>No data available</td>
</tr>
</tbody>
</table>
Boiling Point: -258.7 °F(-161.5 °C) at 14.73 psig
Melting Point: No data available
Decomposition Temperature: No data available
pH: No data available
Specific Gravity/Relative Density: 0.55 to 0.64 Water=1 depending on composition
Density: 0.044 lb(s)/ft³
Bulk Density: No data available
Viscosity: No data available
Water Solubility: Slightly Soluble 0.1 to 1 %

Vapor Pressure: No data available
Vapor Density: No data available
Evaporation Rate: No data available

Flammability
Flash Point: -306 °F(-187.7778 °C)
UEL: 15 % Limits vary slightly with composition
LEL: 4.8 % Limits vary slightly with composition
Autoignition: 1004 °F(540 °C)
Flammability (solid, gas): Flammable gas.

Environmental
Octanol/Water Partition coefficient: No data available

Section 10: Stability and Reactivity

Reactivity
- No dangerous reaction known under conditions of normal use.

Chemical stability
- Stable under normal temperatures and pressures.

Possibility of hazardous reactions
- Hazardous polymerization will not occur.

Conditions to avoid
- Keep away from heat, sparks, and flame.

Incompatible materials
- Strong oxidizers.

Hazardous decomposition products
- Oxides of carbon (CO, CO2), "soot"

Section 11 - Toxicological Information

Information on toxicological effects

<table>
<thead>
<tr>
<th>Components</th>
<th>Acute Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methane (93.5%)</td>
<td>Inhalation-Mouse LC50 • 326 g/m³ 2 Hour(s)</td>
</tr>
<tr>
<td>Isobutane (0.1%)</td>
<td>Inhalation-Rat LC50 • 57 pph 15 Minute(s); Behavioral:Tremor; Behavioral:Convulsions or effect on seizure threshold; Lungs, Thorax, or Respiration:Respiratory depression</td>
</tr>
<tr>
<td>Butane (0.1%)</td>
<td>Inhalation-Rat LC50 • 658 g/m³ 4 Hour(s)</td>
</tr>
</tbody>
</table>
2-Methylbutane (In Liquid form) (< 0.1%): 78-78-4
**Acute Toxicity:** Inhalation-Rat LC50 • 280000 mg/m³ 4 Hour(s)

Pentane (< 0.1%): 109-66-0
**Acute Toxicity:** Ingestion/Oral-Rat LD50 • >2000 mg/kg

Hexane (< 0.1%): 110-54-3
**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 25 g/kg; Inhalation-Rat LC50 • 48000 ppm 4 Hour(s);
**Irritation:** Eye-Rabbit • 10 mg • Mild irritation

Carbon dioxide (0.3%): 124-38-9
**Acute Toxicity:** Inhalation-Rat LC50 • 470000 ppm 30 Minute(s); 
**Reproductive:** Inhalation-Rat TCLo • 6 pph 24 Hour(s)(10D preg);
**Reproductive Effects:** Specific Developmental Abnormalities: Musculoskeletal system; Reproductive Effects: Specific Developmental Abnormalities: Cardiovascular (circulatory) system; Reproductive Effects: Specific Developmental Abnormalities: Respiratory system

<table>
<thead>
<tr>
<th>GHS Properties</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>OSHA HCS 2012 • No data available</td>
</tr>
<tr>
<td>Aspiration Hazard</td>
<td>OSHA HCS 2012 • No data available</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>OSHA HCS 2012 • No data available</td>
</tr>
<tr>
<td>Germ Cell Mutagenicity</td>
<td>OSHA HCS 2012 • No data available</td>
</tr>
<tr>
<td>Skin corrosion/Irritation</td>
<td>OSHA HCS 2012 • No data available</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>OSHA HCS 2012 • No data available</td>
</tr>
<tr>
<td>STOT-RE</td>
<td>OSHA HCS 2012 • No data available</td>
</tr>
<tr>
<td>STOT-SE</td>
<td>OSHA HCS 2012 • No data available</td>
</tr>
<tr>
<td>Toxicity for Reproduction</td>
<td>OSHA HCS 2012 • No data available</td>
</tr>
<tr>
<td>Respiratory sensitization</td>
<td>OSHA HCS 2012 • No data available</td>
</tr>
<tr>
<td>Serious eye damage/Irritation</td>
<td>OSHA HCS 2012 • No data available</td>
</tr>
</tbody>
</table>

**Route(s) of entry/exposure**
- Inhalation, Skin, Eye, Ingestion

**Potential Health Effects**

**Inhalation**

- **Acute (Immediate)**
  - If this material is released in a small, poorly ventilated area (i.e. an enclosed or confined space), an oxygen-deficient environment may occur. Individuals breathing such an atmosphere may experience symptoms which include headaches, ringing in ears, dizziness, drowsiness, unconsciousness, nausea, vomiting, and depression of all the senses. Under some circumstances of over-exposure, death may occur. The following effects associated with decreased levels of oxygen: increase in breathing and pulse rate, emotional upset, abnormal fatigue, nausea, vomiting, collapse, loss of consciousness, convulsive movements, respiratory collapse and death.

  - **Chronic (Delayed)**
    - No data available

**Skin**

- **Acute (Immediate)**
  - Under normal conditions of use, no health effects are expected.

- **Chronic (Delayed)**
  - Under normal conditions of use, no health effects are expected.

**Eye**

- **Acute (Immediate)**
  - Under normal conditions of use, no health effects are expected.

- **Chronic (Delayed)**
  - Under normal conditions of use, no health effects are expected.

**Ingestion**

- **Acute (Immediate)**
  - Ingestion is not anticipated to be a likely route of exposure to this product.

- **Chronic (Delayed)**
  - Ingestion is not anticipated to be a likely route of exposure to this product.
Section 12 - Ecological Information

Toxicity

- Material data lacking.

Persistence and degradability

- Material data lacking.

Bioaccumulative potential

- Material data lacking.

Mobility in Soil

- Material data lacking.

Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been conducted for this material.

Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

<table>
<thead>
<tr>
<th>UN number</th>
<th>UN proper shipping name</th>
<th>Transport hazard class(es)</th>
<th>Packing group</th>
<th>Environmental hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT UN1971</td>
<td>Methane, compressed or Natural gas, compressed (with high methane content)</td>
<td>2.1</td>
<td>NDA</td>
<td>NDA</td>
</tr>
</tbody>
</table>

Special precautions for user

- Cylinders should be transported in a secure position, in a well-ventilated vehicle. The transportation of compressed gas cylinders in automobiles or in closed-body vehicles can present serious safety hazards. If transporting these cylinders in vehicles, ensure these cylinders are not exposed to extremely high temperatures (as may occur in an enclosed vehicle on a hot day). Additionally, the vehicle should be well-ventilated during transportation.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

Preparation Date: 26/February/2006
Revision Date: 17/June/2014
Format: GHS Language: English (US)
OSHA HCS 2012
### Safety, health and environmental regulations/legislation specific for the substance or mixture

**SARA Hazard Classifications**
- Acute, Fire, Pressure (Sudden Release of)

#### Inventory

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>TSCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Methylbutane (In Liquid form)</td>
<td>78-78-4</td>
<td>Yes</td>
</tr>
<tr>
<td>2-Propanethiol, 2-methyl-</td>
<td>75-66-1</td>
<td>Yes</td>
</tr>
<tr>
<td>Butane</td>
<td>106-97-8</td>
<td>Yes</td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>124-38-9</td>
<td>Yes</td>
</tr>
<tr>
<td>Ethane</td>
<td>74-84-0</td>
<td>Yes</td>
</tr>
<tr>
<td>Hexane</td>
<td>110-54-3</td>
<td>Yes</td>
</tr>
<tr>
<td>Hydrogen sulfide</td>
<td>7783-06-4</td>
<td>Yes</td>
</tr>
<tr>
<td>Isobutane</td>
<td>75-28-5</td>
<td>Yes</td>
</tr>
<tr>
<td>Methane</td>
<td>74-82-8</td>
<td>Yes</td>
</tr>
<tr>
<td>Methyl ethyl sulfide</td>
<td>624-89-5</td>
<td>Yes</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>7727-37-9</td>
<td>Yes</td>
</tr>
<tr>
<td>Pentane</td>
<td>109-66-0</td>
<td>Yes</td>
</tr>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>Yes</td>
</tr>
</tbody>
</table>

#### United States

**Labor**

- **U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**
  - Hydrogen sulfide 7783-06-4 1500 lb TQ
  - Pentane 109-66-0 Not Listed
  - Ethane 74-84-0 Not Listed
  - 2-Methylbutane (In Liquid form) 78-78-4 Not Listed
  - Isobutane 75-28-5 Not Listed
  - Carbon dioxide 124-38-9 Not Listed
  - Propane 74-98-6 Not Listed
  - Butane 106-97-8 Not Listed
  - Hexane 110-54-3 Not Listed
  - Nitrogen 7727-37-9 Not Listed
  - 2-Propanethiol, 2-methyl- 75-66-1 Not Listed
  - Methyl ethyl sulfide 624-89-5 Not Listed

- **U.S. - OSHA - Specifically Regulated Chemicals**
  - Hydrogen sulfide 7783-06-4 Not Listed
  - Pentane 109-66-0 Not Listed
  - Ethane 74-84-0 Not Listed
  - 2-Methylbutane (In Liquid form) 78-78-4 Not Listed
  - Isobutane 75-28-5 Not Listed
  - Carbon dioxide 124-38-9 Not Listed
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  - Nitrogen 7727-37-9 Not Listed
<table>
<thead>
<tr>
<th>Compound</th>
<th>CAS Number</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methane</td>
<td>74-82-8</td>
<td>Not Listed</td>
</tr>
<tr>
<td>2-Propanethiol, 2-methyl-</td>
<td>75-66-1</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Methyl ethyl sulfide</td>
<td>624-89-5</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

## Environment

### U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

<table>
<thead>
<tr>
<th>Compound</th>
<th>CAS Number</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen sulfide</td>
<td>7783-06-4</td>
<td>Not Listed</td>
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<td>Methane</td>
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<tr>
<td>2-Propanethiol, 2-methyl-</td>
<td>75-66-1</td>
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<tr>
<td>Methyl ethyl sulfide</td>
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### U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

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<th>Reportable Quantity</th>
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<tbody>
<tr>
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<td>7783-06-4</td>
<td>100 lb final RQ; 45.4 kg final RQ</td>
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<tr>
<td>Pentane</td>
<td>109-66-0</td>
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<tr>
<td>Ethane</td>
<td>74-84-0</td>
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</tr>
<tr>
<td>Isobutane</td>
<td>75-28-5</td>
<td>Not Listed</td>
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<tr>
<td>Carbon dioxide</td>
<td>124-38-9</td>
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<td>Butane</td>
<td>106-97-8</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Hexane</td>
<td>110-54-3</td>
<td>5000 lb final RQ; 2270 kg final RQ</td>
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<td>Nitrogen</td>
<td>7727-37-9</td>
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<tr>
<td>Methane</td>
<td>74-82-8</td>
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<td>2-Propanethiol, 2-methyl-</td>
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### U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

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<td>Carbon dioxide</td>
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<td>Butane</td>
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### U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

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<td>Ethane</td>
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<td>Methane</td>
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<tr>
<td>2-Propanethiol, 2-methyl-</td>
<td>75-66-1</td>
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<tr>
<td>Methyl ethyl sulfide</td>
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**U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs**

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<tr>
<td>Methane</td>
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<tr>
<td>2-Propanethiol, 2-methyl-</td>
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**U.S. - CERCLA/SARA - Section 313 - Emission Reporting**

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<th>De minimis concentration</th>
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<td>Pentane</td>
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**U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing**

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<td>Ethane</td>
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<td>Butane</td>
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### United States - California

#### Environment

**U.S. - California - Proposition 65 - Carcinogens List**

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<tr>
<td>Methane</td>
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<td>Not Listed</td>
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<tr>
<td>2-Propanethiol, 2-methyl-</td>
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<tr>
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**U.S. - California - Proposition 65 - Developmental Toxicity**

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<td>Carbon dioxide</td>
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<td>Methyl ethyl sulfide</td>
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**U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)**

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<th>CAS Number</th>
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<tr>
<td>Methane</td>
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<td>2-Propanethiol, 2-methyl-</td>
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**U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)**

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<th>List Status</th>
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**U.S. - California - Proposition 65 - Reproductive Toxicity - Female**

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<td>Isobutane</td>
<td>75-28-5</td>
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<td>Carbon dioxide</td>
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<td>Methane</td>
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**U.S. - California - Proposition 65 - Reproductive Toxicity - Male**

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</tr>
<tr>
<td>Pentane</td>
<td>109-66-0</td>
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</tr>
<tr>
<td>Ethane</td>
<td>74-84-0</td>
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</tr>
<tr>
<td>2-Methylbutane (In Liquid form)</td>
<td>78-78-4</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Isobutane</td>
<td>75-28-5</td>
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</tr>
<tr>
<td>Carbon dioxide</td>
<td>124-38-9</td>
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</tr>
<tr>
<td>Propane</td>
<td>74-98-6</td>
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</tr>
<tr>
<td>Butane</td>
<td>106-97-8</td>
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</tr>
<tr>
<td>Hexane</td>
<td>110-54-3</td>
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<td>Nitrogen</td>
<td>7727-37-9</td>
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<tr>
<td>Methane</td>
<td>74-82-8</td>
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<tr>
<td>2-Propanethiol, 2-methyl-</td>
<td>75-66-1</td>
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<tr>
<td>Methyl ethyl sulfide</td>
<td>624-89-5</td>
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</tr>
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**Section 16 - Other Information**

**Last Revision Date**
- 17/June/2014

**Preparation Date**
- 26/February/2006

**Disclaimer/Statement of Liability**
- The data contained in this SDS are believed to be accurate, but are not so warranted whether or not they originated at NW Natural. Recipients of this SDS are advised to confirm ahead of time that the data are current and suitable to their needs.
Key to abbreviations
NDA = No Data Available