Material Name: Ethane, Propane, Ethylene, Butane, Isobutane, Propylene, Carbon Dioxide, Nitrogen, and Methane Gas Mixture

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name
Ethane, Propane, Ethylene, Butane, Isobutane, Propylene, Carbon Dioxide, Nitrogen, and Methane Gas Mixture

Product Use
Industrial and Specialty Gas Applications.

Restrictions on Use
None known.

Details of the supplier of the safety data sheet
MATHESON TRI-GAS, INC.
150 Allen Road, Suite 302
Basking Ridge, NJ 07920
General Information: 1-800-416-2505
Emergency #: 1-800-424-9300 (CHEMTREC)
Outside the US: 703-527-3887 (Call collect)

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.
Flammable Gases - Category 1
Gases Under Pressure - Compressed gas
Specific Target Organ Toxicity - Single Exposure - Category 2 (heart)
Specific Target Organ Toxicity - Single Exposure - Category 3
Simple Asphyxiant

GHS Label Elements
Symbol(s)

Signal Word
Danger

Hazard Statement(s)
Extremely flammable gas.
Contains gas under pressure; may explode if heated.
May cause damage to organs.
May cause drowsiness or dizziness.
May displace oxygen and cause rapid suffocation.

Precautionary Statement(s)
Prevention
Keep away from heat/sparks/open flame/hot surfaces - No smoking.
Use only outdoors or in a well-ventilated area.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.

Response
Safety Data Sheet

Material Name: Ethane, Propane, Ethylene, Butane, Isobutane, Propylene, Carbon Dioxide, Nitrogen, and Methane Gas Mixture

Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so.
If exposed or concerned: Call a POISON CENTER or doctor/physician.
IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.

Storage
Store in a well-ventilated place. Keep container tightly closed.
Protect from sunlight.
Store locked up.

Disposal
Dispose in accordance with all applicable regulations.

Other Hazards
The rapid release of compressed gas may cause frostbite.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS</th>
<th>Component Name</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>74-82-8</td>
<td>Methane</td>
<td>0-100</td>
</tr>
<tr>
<td>7727-37-9</td>
<td>Nitrogen</td>
<td>0-100</td>
</tr>
<tr>
<td>124-38-9</td>
<td>Carbon dioxide</td>
<td>0-100</td>
</tr>
<tr>
<td>75-28-5</td>
<td>Isobutane</td>
<td>0-100</td>
</tr>
<tr>
<td>106-97-8</td>
<td>Butane</td>
<td>0-100</td>
</tr>
<tr>
<td>74-84-0</td>
<td>Ethane</td>
<td>0-100</td>
</tr>
<tr>
<td>74-98-6</td>
<td>Propane</td>
<td>0-100</td>
</tr>
<tr>
<td>115-07-1</td>
<td>Propylene</td>
<td>0-100</td>
</tr>
<tr>
<td>74-85-1</td>
<td>Ethylene</td>
<td>&lt;7.6</td>
</tr>
</tbody>
</table>

Section 4 - FIRST AID MEASURES

Inhalation
If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.

Skin
If frostbite or freezing occur, immediately flush with plenty of lukewarm water (105-115°F; 41-46°C). DO NOT USE HOT WATER. If warm water is not available, gently wrap affected parts in blankets. Get immediate medical attention.

Eyes
Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

Ingestion
If swallowed, get medical attention.

Most Important Symptoms/Effects
Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media
Suitable Extinguishing Media
carbon dioxide, regular dry chemical

Unsuitable Extinguishing Media
Do not direct water at source of leak or safety devices; icing may occur.

Special Hazards Arising from the Chemical
Severe fire hazard. Vapors or gases may ignite at distant ignition sources and flash back. Containers may rupture or explode if exposed to heat.

Hazardous Combustion Products
oxides of carbon, oxides of nitrogen

Fire Fighting Measures
Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. If this is impossible then take the following precautions: Keep unnecessary people away, isolate hazard area and deny entry. Let the fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tank, rail car or tank truck: Evacuation radius: 1600 meters (1 mile).

Special Protective Equipment and Precautions for Firefighters
Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures
Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up
Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so. Reduce vapors with water spray. Eliminate all ignition sources if safe to do so. Stop leak if safe to do so - Prevent entry into waterways, drains, or confined areas. Keep unnecessary people away, isolate hazard area and deny entry. Ventilate closed spaces before entering. Damaged cylinders should be handled only by specialists.

Environmental Precautions
Avoid release to the environment. Keep out of water supplies and sewers.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling
Keep away from heat, sparks and flame. Ground any equipment used in handling. Do not breathe gas, fumes, vapor, or spray. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves and protective clothing.

Conditions for Safe Storage, Including any Incompatibilities
Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Store locked up.
Store and handle in accordance with all current regulations and standards. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101. See original container for storage recommendations. Keep separated from incompatible substances.

**Incompatible Materials**
oxidizing materials, combustible materials, halocarbons, halogens, acids, metals

### Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Component Exposure Limits

<table>
<thead>
<tr>
<th>Component</th>
<th>Limit</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methane</td>
<td>74-82-8</td>
<td></td>
</tr>
<tr>
<td>ACGIH:</td>
<td>(See Appendix F: Minimal Oxygen Content)</td>
<td></td>
</tr>
<tr>
<td>Nitrogen</td>
<td>7727-37-9</td>
<td></td>
</tr>
<tr>
<td>ACGIH:</td>
<td>(See Appendix F: Minimal Oxygen Content)</td>
<td></td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>124-38-9</td>
<td></td>
</tr>
<tr>
<td>ACGIH:</td>
<td>5000 ppm TWA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>30000 ppm STEL</td>
<td></td>
</tr>
<tr>
<td>NIOSH:</td>
<td>5000 ppm TWA ; 9000 mg/m3 TWA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>30000 ppm STEL ; 54000 mg/m3 STEL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>40000 ppm IDLH</td>
<td></td>
</tr>
<tr>
<td>Europe:</td>
<td>5000 ppm TWA ; 9000 mg/m3 TWA</td>
<td></td>
</tr>
<tr>
<td>OSHA (US):</td>
<td>5000 ppm TWA ; 9000 mg/m3 TWA</td>
<td></td>
</tr>
<tr>
<td>Mexico:</td>
<td>5000 ppm TWA VLE-PPT ; 9000 mg/m3 TWA VLE-PPT</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15000 ppm STEL [PPT-CT ]; 27000 mg/m3 STEL [PPT-CT ]</td>
<td></td>
</tr>
<tr>
<td>Isobutane</td>
<td>75-28-5</td>
<td></td>
</tr>
<tr>
<td>ACGIH:</td>
<td>1000 ppm STEL (explosion hazard)</td>
<td></td>
</tr>
<tr>
<td>NIOSH:</td>
<td>800 ppm TWA ; 1900 mg/m3 TWA</td>
<td></td>
</tr>
<tr>
<td>Butane</td>
<td>106-97-8</td>
<td></td>
</tr>
<tr>
<td>ACGIH:</td>
<td>1000 ppm STEL (explosion hazard)</td>
<td></td>
</tr>
<tr>
<td>NIOSH:</td>
<td>800 ppm TWA ; 1900 mg/m3 TWA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1600 ppm IDLH (&gt;10% LEL )</td>
<td></td>
</tr>
</tbody>
</table>
## Ethane, Propane, Ethylene, Butane, Isobutane, Propylene, Carbon Dioxide, Nitrogen, and Methane Gas Mixture

<table>
<thead>
<tr>
<th>Material</th>
<th>Mexico</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA (US)</th>
<th>Propylene</th>
<th>ACGIH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethane</td>
<td>800 ppm TWA VLE-PPT ; 1900 mg/m3 TWA VLE-PPT</td>
<td>74-84-0</td>
<td>(See Appendix F: Minimal Oxygen Content, explosion hazard)</td>
<td>(See Appendix F: Minimal Oxygen Content, explosion hazard)</td>
<td>115-07-1</td>
<td>500 ppm TWA</td>
</tr>
<tr>
<td>Propane</td>
<td></td>
<td>74-98-6</td>
<td>1000 ppm TWA ; 1800 mg/m3 TWA</td>
<td>2100 ppm IDLH (10% LEL)</td>
<td>115-07-1</td>
<td>500 ppm TWA</td>
</tr>
<tr>
<td>NIOSH</td>
<td></td>
<td>(See Appendix F: Minimal Oxygen Content, explosion hazard)</td>
<td>(See Appendix F: Minimal Oxygen Content, explosion hazard)</td>
<td>1000 ppm TWA ; 1800 mg/m3 TWA</td>
<td>(See Appendix F: Minimal Oxygen Content, explosion hazard)</td>
<td>(See Appendix F: Minimal Oxygen Content, explosion hazard)</td>
</tr>
<tr>
<td>OSHA (US)</td>
<td></td>
<td>1000 ppm TWA ; 1800 mg/m3 TWA</td>
<td>(See Appendix F: Minimal Oxygen Content, explosion hazard)</td>
<td>(See Appendix F: Minimal Oxygen Content, explosion hazard)</td>
<td>(See Appendix F: Minimal Oxygen Content, explosion hazard)</td>
<td>(See Appendix F: Minimal Oxygen Content, explosion hazard)</td>
</tr>
<tr>
<td>Ethylene</td>
<td></td>
<td>74-85-1</td>
<td></td>
<td></td>
<td>115-07-1</td>
<td>500 ppm TWA</td>
</tr>
<tr>
<td>ACGIH</td>
<td></td>
<td>200 ppm TWA</td>
<td></td>
<td></td>
<td>115-07-1</td>
<td>500 ppm TWA</td>
</tr>
</tbody>
</table>

### ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)

There are no biological limit values for any of this product's components.

### Engineering Controls

Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

### Individual Protection Measures, such as Personal Protective Equipment

#### Eye/face protection
For the gas: Eye protection not required, but recommended. For the liquid: Wear splash resistant safety goggles. Contact lenses should not be worn. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

#### Skin Protection
For the gas: Protective clothing is not required, but recommended. For the liquid: Wear appropriate protective, cold insulating clothing.

### Respiratory Protection

Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum. Consider warning properties before use. For Unknown Concentrations or Immediately Dangerous to Life or Health -. Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode. Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

#### Glove Recommendations
For the gas: Protective gloves are not required, but recommended. For the liquid: Wear insulated gloves.
Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>colorless gas</td>
<td>Physical State</td>
<td>gas</td>
</tr>
<tr>
<td>Odor</td>
<td>Not available</td>
<td>Color</td>
<td>colorless</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available</td>
<td>pH</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not available</td>
<td>Boiling Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling Point Range</td>
<td>Not available</td>
<td>Freezing point</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not available</td>
<td>Flammability (solid, gas)</td>
<td>Flammable gas</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>Not available</td>
<td>Flash Point</td>
<td>Flammable</td>
</tr>
<tr>
<td>Lower Explosive Limit</td>
<td>Not available</td>
<td>Decomposition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Upper Explosive Limit</td>
<td>Not available</td>
<td>Vapor Pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Density (air=1)</td>
<td>Not available</td>
<td>Specific Gravity (water=1)</td>
<td>Not available</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Not available</td>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available</td>
<td>Kinematic viscosity</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility (Other)</td>
<td>Not available</td>
<td>Density</td>
<td>Not available</td>
</tr>
<tr>
<td>Physical Form</td>
<td>Compressed gas</td>
<td>Molecular Weight</td>
<td>Not available</td>
</tr>
</tbody>
</table>

Other Information
No additional information is available.

Section 10 - STABILITY AND REACTIVITY

Reactivity
No reactivity hazard is expected.

Chemical Stability
Stable under normal conditions of use.

Possibility of Hazardous Reactions
Will not polymerize.

Conditions to Avoid
Avoid heat, flames, sparks and other sources of ignition. Minimize contact with material. Avoid inhalation of material or combustion by-products. Keep out of water supplies and sewers.

Incompatible Materials
oxidizing materials, combustible materials, halocarbons, halogens, acids, metals

Hazardous decomposition products
oxides of carbon, oxides of nitrogen

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure
Safety Data Sheet

Material Name: Ethane, Propane, Ethylene, Butane, Isobutane, Propylene, Carbon Dioxide, Nitrogen, and Methane Gas Mixture

SDS ID: 00244716

Inhalation
nausea, vomiting, difficulty breathing, headache, drowsiness, dizziness, disorientation, mood swings, loss of coordination, suffocation, convulsions, unconsciousness, coma

Skin Contact
irritation, frostbite

Eye Contact
irritation, frostbite

Ingestion
ingestion of a gas is unlikely

Acute and Chronic Toxicity

Component Analysis - LD50/LC50
The components of this material have been reviewed in various sources and the following selected endpoints are published:

Isobutane (75-28-5)
Inhalation LC50 Rat 658 mg/L 4 h

Butane (106-97-8)
Inhalation LC50 Rat 658 g/m3 4 h

Ethane (74-84-0)
Inhalation LC50 Rat 658 mg/L 4 h

Propane (74-98-6)
Inhalation LC50 Rat >800000 ppm 15 min

Propylene (115-07-1)
Inhalation LC50 Rat >65000 ppm 4 h (pretreated by gavage with polychlorinated biphenyl)

Product Toxicity Data

Acute Toxicity Estimate
No data available.

Immediate Effects
frostbite, suffocation, depression of central nervous system, heart damage

Delayed Effects
No information on significant adverse effects.

Irritation/Corrosivity Data
No information available for the product.

Respiratory Sensitization
No information available for the product.

Dermal Sensitization
No information available for the product.

Component Carcinogenicity

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene</td>
<td>115-07-1</td>
</tr>
<tr>
<td>ACGIH:</td>
<td>A4 - Not Classifiable as a Human Carcinogen</td>
</tr>
<tr>
<td>IARC:</td>
<td>Monograph 60 [1994] ; Supplement 7 [1987] (Group 3 (not classifiable))</td>
</tr>
<tr>
<td>Ethylene</td>
<td>74-85-1</td>
</tr>
<tr>
<td>ACGIH:</td>
<td>A4 - Not Classifiable as a Human Carcinogen</td>
</tr>
</tbody>
</table>
Safety Data Sheet

Material Name: Ethane, Propane, Ethylene, Butane, Isobutane, Propylene, Carbon Dioxide, Nitrogen, and Methane Gas Mixture

<table>
<thead>
<tr>
<th>IARC:</th>
<th>Monograph 60 [1994] ; Supplement 7 [1987] (Group 3 (not classifiable))</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFG:</td>
<td>Category 3B (could be carcinogenic for man)</td>
</tr>
</tbody>
</table>

Germ Cell Mutagenicity
No information available for the product.

Tumorigenic Data
No information available for the product.

Reproductive Toxicity
No information available for the product.

Specific Target Organ Toxicity - Single Exposure
central nervous system, heart

Specific Target Organ Toxicity - Repeated Exposure
No target organs identified.

Aspiration hazard
Not applicable.

Medical Conditions Aggravated by Exposure
No information available for the product.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity
Harmful to aquatic life.

Component Analysis - Aquatic Toxicity
No LOLI ecotoxicity data are available for this product's components.

Persistence and Degradability
No information available for the product.

Bioaccumulative Potential
No information available for the product.

Mobility
No information available for the product.

Other Toxicity
No additional information is available.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods
Dispose in accordance with all applicable regulations.

Component Waste Numbers
The U.S. EPA has not published waste numbers for this product's components.

Section 14 - TRANSPORT INFORMATION

US DOT Information:
Shipping Name: COMPRESSED GAS, FLAMMABLE, N.O.S. , ( Contains: highest concentration component , second highest concentration component )
Hazard Class: 2.1
UN/NA #: UN1954
Required Label(s): 2.1

IMDG Information:
Shipping Name: COMPRESSED GAS, FLAMMABLE, N.O.S. , ( Contains: highest concentration component ,
Safety Data Sheet

Material Name: Ethane, Propane, Ethylene, Butane, Isobutane, Propylene, Carbon Dioxide, Nitrogen, and Methane Gas Mixture

second highest concentration component )

Hazard Class: 2.1

UN#: UN1954

Required Label(s): 2.1

International Bulk Chemical Code

This material does not contain any chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>CA</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene</td>
<td>115-07-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SARA 313:</td>
<td>1 % de minimis concentration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethylene</td>
<td>74-85-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SARA 313:</td>
<td>1 % de minimis concentration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SARA Section 311/312 (40 CFR 370 Subparts B and C) reporting categories

Flammable; Gas Under Pressure; Specific Target Organ Toxicity; Simple Asphyxiant

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>CA</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methane</td>
<td>74-82-8</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>7727-37-9</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>124-38-9</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Isobutane</td>
<td>75-28-5</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Butane</td>
<td>106-97-8</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Ethane</td>
<td>74-84-0</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Propylene</td>
<td>115-07-1</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Ethylene</td>
<td>74-85-1</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Not listed under California Proposition 65

Canada Regulations

Canadian WHMIS Ingredient Disclosure List (IDL)
Safety Data Sheet

Material Name: Ethane, Propane, Ethylene, Butane, Isobutane, Propylene, Carbon Dioxide, Nitrogen, and Methane Gas Mixture

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL.

<table>
<thead>
<tr>
<th></th>
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<td>Isobutane</td>
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## Safety Data Sheet

**Material Name:** Ethane, Propane, Ethylene, Butane, Isobutane, Propylene, Carbon Dioxide, Nitrogen, and Methane Gas Mixture  

**SDS ID:** 00244716

### Butane (106-97-8)

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### Ethane (74-84-0)

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### Propylene (115-07-1)
Safety Data Sheet

Material Name: Ethane, Propane, Ethylene, Butane, Isobutane, Propylene, Carbon Dioxide, Nitrogen, and Methane Gas Mixture

SDS ID: 00244716

Section 16 - OTHER INFORMATION

NFPA Ratings
Health: 2 Fire: 4 Reactivity: 0
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes
New SDS: 1/13/2016

Key / Legend
ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA* - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CFR - Code of Federal Regulations (US); CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EC – European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; F - Background (for Venezuela Biological Exposure Indices); IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KR KECI Annex 1 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR KECI Annex 2 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR’s Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX - Mexico; Ne - Non-specific; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health;
Safety Data Sheet

Material Name: Ethane, Propane, Ethylene, Butane, Isobutane, Propylene, Carbon Dioxide, Nitrogen, and Methane Gas Mixture

NJTSR - New Jersey Trade Secret Registry; Nq - Non-quantitative; NSL – Non-Domestic Substance List (Canada); NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL - Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH - Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; Sc - Semi-quantitative; STEL - Short-term Exposure Limit; TCCA – Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW – Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); VN (Draft) - Vietnam (Draft); WHMIS - Workplace Hazardous Materials Information System (Canada).

Other Information

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