Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name
Carbon Monoxide, Oxygen, Methane, Hydrogen, Carbon Dioxide, Helium, Nitrogen, and Argon Gas Mix

Product Description
Classification determined in accordance with Compressed Gas Association standards.

Product Use
instrument calibration

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
Reproductive Toxicity - Category 1A
Specific Target Organ Toxicity - Repeated Exposure - Category 1 (central nervous system)
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 damage fertility or the unborn child.
Causes damage to organs through prolonged or repeated exposure.
May displace oxygen and cause rapid suffocation.

Precautionary Statement(s)
Prevention
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flame/hot surfaces - No smoking.
Wear protective gloves/protective clothing/eye protection/face protection.
Safety Data Sheet

Material Name: Carbon Monoxide, Oxygen, Methane, Hydrogen, Carbon Dioxide, Helium, Nitrogen, and Argon Gas Mix

Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

Response
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: Get medical advice/attention. Get medical advice/attention if you feel unwell.

Storage
Store locked up. Protect from sunlight. Store in a well-ventilated place.

Disposal
Dispose of contents/container in accordance with local/regional/national/international regulations.

Other Hazards
Rapid release of compressed gas may cause frostbite. Concentration(s) of flammable component(s) will result in a flammable gas classification.

### Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS</th>
<th>Component Name</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>7727-37-9</td>
<td>Nitrogen</td>
<td>&lt;100</td>
</tr>
<tr>
<td>124-38-9</td>
<td>Carbon dioxide</td>
<td>&lt;100</td>
</tr>
<tr>
<td>7440-59-7</td>
<td>Helium</td>
<td>&lt;100</td>
</tr>
<tr>
<td>7440-37-1</td>
<td>Argon</td>
<td>&lt;100</td>
</tr>
<tr>
<td>1333-74-0</td>
<td>Hydrogen</td>
<td>&lt;100</td>
</tr>
<tr>
<td>74-82-8</td>
<td>Methane</td>
<td>&lt;100</td>
</tr>
<tr>
<td>630-08-0</td>
<td>Carbon monoxide</td>
<td>&lt;75.2</td>
</tr>
<tr>
<td>7782-44-7</td>
<td>Oxygen</td>
<td>≤23.5</td>
</tr>
</tbody>
</table>

### Section 4 - FIRST AID MEASURES

Inhalation
If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. 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. Remove contact lenses, if present and easy to do. Continue rinsing. Then get immediate medical attention.

Ingestion

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Issue date: 2018-04-05  Revision 3.8  Print date: 2018-04-05
Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
regular dry chemical, carbon dioxide.

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. Severe explosion hazard. Vapor/air mixtures are explosive. Pressurized containers may rupture or explode if exposed to sufficient heat.

Hazardous Combustion Products
oxides of nitrogen, oxides of carbon

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. Do not direct water at source of leak or safety devices; icing may occur. 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: Stop leak if possible without personal risk. Let burn unless leak can be stopped immediately. Evacuation radius: 1600 meters (1 mile). For smaller tanks or cylinders, extinguish and isolate from other flammables. Do not attempt to extinguish fire unless flow of material can be stopped first. Flood with fine water spray. Apply water from a protected location or from a safe distance. Evacuate if fire gets out of control or containers are directly exposed to fire. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. Consider downwind evacuation if material is leaking. Stop flow of gas.

Special Protective Equipment and Precautions for Firefighters
Wear personal protective clothing and equipment such as 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
Stop leak if possible without personal risk. Keep unnecessary people away, isolate hazard area and deny entry. Remove sources of ignition. All equipment used when handling the product must be grounded. Stay upwind and keep out of low areas. Do not touch or walk through spilled material. If possible, turn leaking containers so that gas escapes rather than liquid. Do not direct water at spill or source of leak. Allow substance to evaporate. Ventilate closed spaces before entering.

Environmental Precautions
Avoid release to the environment.
Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flame/hot surfaces - No smoking. All equipment used when handling the product must be grounded. Use only outdoors or in a well-ventilated area. Do not breathe gas. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.

Conditions for Safe Storage, Including any Incompatibilities
Store locked up.
Protect from sunlight. Store in a well-ventilated place.

Incompatible Materials
metals, oxidizing materials, combustible materials, halo carbons, bases, reducing agents, amines, metal salts, metal carbide, halogens, lithium, metal oxides

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

<table>
<thead>
<tr>
<th>Component</th>
<th>Exposure Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nitrogen</strong></td>
<td>7727-37-9</td>
</tr>
<tr>
<td>ACGIH:</td>
<td>(See Appendix F: Minimal Oxygen Content )</td>
</tr>
<tr>
<td><strong>Carbon dioxide</strong></td>
<td>124-38-9</td>
</tr>
<tr>
<td>ACGIH:</td>
<td>5000 ppm TWA</td>
</tr>
<tr>
<td></td>
<td>30000 ppm STEL</td>
</tr>
<tr>
<td>NIOSH:</td>
<td>5000 ppm TWA ; 9000 mg/m3 TWA</td>
</tr>
<tr>
<td></td>
<td>30000 ppm STEL ; 54000 mg/m3 STEL</td>
</tr>
<tr>
<td></td>
<td>40000 ppm IDLH</td>
</tr>
<tr>
<td>Europe:</td>
<td>5000 ppm TWA ; 9000 mg/m3 TWA</td>
</tr>
<tr>
<td>OSHA (US):</td>
<td>5000 ppm TWA ; 9000 mg/m3 TWA</td>
</tr>
<tr>
<td>Mexico:</td>
<td>5000 ppm TWA VLE-PPT ; 9000 mg/m3 TWA VLE-PPT</td>
</tr>
<tr>
<td></td>
<td>15000 ppm STEL [PPT-CT ]; 27000 mg/m3 STEL [PPT-CT ]</td>
</tr>
<tr>
<td><strong>Helium</strong></td>
<td>7440-59-7</td>
</tr>
<tr>
<td>ACGIH:</td>
<td>(See Appendix F: Minimal Oxygen Content )</td>
</tr>
<tr>
<td><strong>Argon</strong></td>
<td>7440-37-1</td>
</tr>
</tbody>
</table>
Safety Data Sheet

Material Name: Carbon Monoxide, Oxygen, Methane, Hydrogen, Carbon Dioxide, Helium, Nitrogen, and Argon Gas Mix

<table>
<thead>
<tr>
<th>Substance</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA (US)</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen</td>
<td>(See Appendix F: Minimal Oxygen Content)</td>
<td>1333-74-0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methane</td>
<td>(See Appendix F: Minimal Oxygen Content, explosion hazard)</td>
<td>74-82-8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carbon monoxide</td>
<td>630-08-0</td>
<td>25 ppm TWA</td>
<td>50 ppm TWA ; 55 mg/m3 TWA</td>
<td>50 ppm TWA VLE-PPT ; 55 mg/m3 TWA VLE-PPT</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>200 ppm Ceiling ; 229 mg/m3 Ceiling</td>
<td>400 ppm STEL [PPT-CT ]; 400 mg/m3 STEL [PPT-CT ]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1200 ppm IDLH</td>
<td></td>
</tr>
</tbody>
</table>

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

**Carbon monoxide (630-08-0)**

3.5 % of hemoglobin Medium: blood Time: end of shift Parameter: Carboxyhemoglobin (background, nonspecific);
20 ppm Medium: end-exhaled air Time: end of shift Parameter: Carbon monoxide (background, nonspecific)

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

Section 10 - STABILITY AND REACTIVITY

Reactivity
No reactivity hazard is expected.

Chemical Stability
Stable at normal temperatures and pressure.

Possibility of Hazardous Reactions
Will not polymerize.

Conditions to Avoid
Protect from physical damage and heat. Containers may rupture or explode if exposed to heat.

Incompatible Materials
metals, oxidizing materials, combustible materials, halo carbons, bases, reducing agents, amines, metal salts, metal carbide, halogens, halogens, lithium, metal oxides

Hazardous decomposition products
oxides of nitrogen, oxides of carbon

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure
Inhalation
nausea, vomiting, difficulty breathing, headache, drowsiness, dizziness, tingling sensation, loss of coordination, convulsions, coma, suffocation, irritation, changes in body temperature, irregular heartbeat, disorientation, hallucinations, mood swings, pain in extremities, tremors, lung congestion, chest pain, lung damage, sensitivity to light, changes in blood pressure, sleep disturbances, emotional disturbances, visual disturbances, hearing loss, eye damage, blood disorders, death, loss of appetite, heart damage, nerve damage, birth defects, brain damage, fatigue, muscle cramps

Skin Contact
frostbite, blisters

Eye Contact
frostbite, irritation, blurred vision

Ingestion
Ingestion of 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:

Hydrogen (1333-74-0)
Inhalation LC50 Rat >15000 ppm 1 h

Carbon monoxide (630-08-0)
Inhalation LC50 Rat 1807 ppm 4 h

Product Toxicity Data
Acute Toxicity Estimate
No data available.

Immediate Effects
frostbite, suffocation

Delayed Effects
reproductive effects, central nervous system damage

Irritation/Corrosivity Data
No data available.

Respiratory Sensitization
No data available.

Dermal Sensitization
No data available.

Component Carcinogenicity
None of this product's components are listed by ACGIH, IARC, NTP, DFG or OSHA.

Germ Cell Mutagenicity
No data available.

Tumorigenic Data
No data available

Reproductive Toxicity
Carbon monoxide: May damage fertility or the unborn child.

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

Specific Target Organ Toxicity - Repeated Exposure
central nervous system

Aspiration hazard
No data available.
Safety Data Sheet

Material Name: Carbon Monoxide, Oxygen, Methane, Hydrogen, Carbon Dioxide, Helium, Nitrogen, and Argon Gas Mix

Medical Conditions Aggravated by Exposure
heart or cardiovascular disorders, respiratory disorders, blood system disorders, hormonal disorders

**Section 12 - ECOLOGICAL INFORMATION**

### Ecotoxicity
May cause long lasting harmful effects to aquatic life.

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

### Persistence and Degradability
No data available for the mixture.

### Bioaccumulative Potential
No data available for the mixture.

### Mobility
No data available for the mixture.

### Other Toxicity
No additional information 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: Methane , Hydrogen )
**Hazard Class:** 2.1
**UN/NA #:** UN1954
**Required Label(s):** 2.1

### IATA Information:
**Shipping Name:** COMPRESSED GAS, FLAMMABLE, N.O.S. , ( Contains: Methane , Hydrogen )
**Hazard Class:** 2.1
**UN#:** UN1954
**Required Label(s):** 2.1

### IMDG Information:
**Shipping Name:** COMPRESSED GAS, FLAMMABLE, N.O.S. , ( Contains: Methane , Hydrogen )
**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
None of this product's components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.
Safety Data Sheet

Material Name: Carbon Monoxide, Oxygen, Methane, Hydrogen, Carbon Dioxide, Helium, Nitrogen, and Argon Gas Mix

SARA Section 311/312 (40 CFR 370 Subparts B and C) reporting categories
Flammable; Gas Under Pressure; Reproductive Toxicity; 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>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>Helium</td>
<td>7440-59-7</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Argon</td>
<td>7440-37-1</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>1333-74-0</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<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>Carbon monoxide</td>
<td>630-08-0</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Oxygen</td>
<td>7782-44-7</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):
WARNING! This product contains a chemical known to the state of California to cause reproductive/developmental effects

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon monoxide</td>
<td>630-08-0</td>
</tr>
</tbody>
</table>

Repro/Dev. Tox developmental toxicity, 7/1/1989

Canada Regulations
Canadian WHMIS Ingredient Disclosure List (IDL)
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>Component</th>
<th>CAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon dioxide</td>
<td>124-38-9</td>
</tr>
<tr>
<td></td>
<td>1 %</td>
</tr>
<tr>
<td>Carbon monoxide</td>
<td>630-08-0</td>
</tr>
<tr>
<td></td>
<td>0.1 %</td>
</tr>
</tbody>
</table>

WHMIS Classification
A, D2A
Component Analysis - Inventory
Nitrogen (7727-37-9)
Material Name: Carbon Monoxide, Oxygen, Methane, Hydrogen, Carbon Dioxide, Helium, Nitrogen, and Argon Gas Mix

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
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<td>DSL</td>
<td>EIN</td>
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<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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Carbon dioxide (124-38-9)

<table>
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<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>DSL</td>
<td>EIN</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Helium (7440-59-7)

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>DSL</td>
<td>EIN</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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Argon (7440-37-1)

<table>
<thead>
<tr>
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Hydrogen (1333-74-0)

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Methane (74-82-8)
Safety Data Sheet

Material Name: Carbon Monoxide, Oxygen, Methane, Hydrogen, Carbon Dioxide, Helium, Nitrogen, and Argon Gas Mix

SDS ID: 00244707

Carbon monoxide (630-08-0)

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Oxygen (7782-44-7)

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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
Updated: 04/25/2016

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
Safety Data Sheet

Material Name: Carbon Monoxide, Oxygen, Methane, Hydrogen, Carbon Dioxide, Helium, Nitrogen, and Argon Gas Mix

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; 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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