



## Safety Data Sheet

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### SECTION 1: Identification

#### 1.1. Product identifier

Gas Cylinders Containing 95 ppm Carbon Monoxide in Air

#### Product Identification Numbers

70-0708-8881-6, 78-8124-0015-4

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Calibration Gas

#### 1.3. Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Personal Safety Division
<b>ADDRESS:</b>	3M Center, St. Paul, MN 55144-1000, USA
<b>Telephone:</b>	1-888-3M HELPS (1-888-364-3577)

#### 1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

### SECTION 2: Hazard identification

#### 2.1. Hazard classification

Gas Under Pressure: Compressed gas.  
Simple Asphyxiant.

#### 2.2. Label elements

##### Signal word

Warning

##### Symbols

Gas cylinder |

##### Pictograms



**Hazard Statements**

Contains gas under pressure; may explode if heated.

May displace oxygen and cause rapid suffocation.

**Precautionary Statements**

**Storage:**

Protect from sunlight. Store in a well-ventilated place.

**2.3. Hazards not otherwise classified**

None.

**SECTION 3: Composition/information on ingredients**

Ingredient	C.A.S. No.	% by Wt
NITROGEN	7727-37-9	76.465 - 80.46 Trade Secret *
OXYGEN	7782-44-7	19.5 - 23.5 Trade Secret *
CARBON MONOXIDE	630-08-0	0.0035 - 0.04 Trade Secret *

\*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**Inhalation:**

Remove person to fresh air. If you feel unwell, get medical attention.

**Skin Contact:**

No need for first aid is anticipated.

**Eye Contact:**

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

**If Swallowed:**

No need for first aid is anticipated.

**4.2. Most important symptoms and effects, both acute and delayed**

See Section 11.1. Information on toxicological effects.

**4.3. Indication of any immediate medical attention and special treatment required**

Not applicable

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

Material will not burn. Use a fire fighting agent suitable for the surrounding fire.

### 5.2. Special hazards arising from the substance or mixture

None inherent in this product.

### 5.3. Special protective actions for fire-fighters

No special protective actions for fire-fighters are anticipated.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available. Place in a closed container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

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

### 7.2. Conditions for safe storage including any incompatibilities

Protect from sunlight. Store in a well-ventilated place. Store away from heat.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
CARBON MONOXIDE	630-08-0	ACGIH	TWA:25 ppm	
CARBON MONOXIDE	630-08-0	OSHA	TWA:55 mg/m <sup>3</sup> (50 ppm)	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

OSHA : United States Department of Labor - Occupational Safety and Health Administration

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

### 8.2. Exposure controls

**8.2.1. Engineering controls**

Do not remain in area where available oxygen may be reduced. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

**8.2.2. Personal protective equipment (PPE)**

**Eye/face protection**

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:  
Safety Glasses with side shields

**Skin/hand protection**

No protective gloves required.

**Respiratory protection**

None required.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

<b>General Physical Form:</b>	Gas
<b>Specific Physical Form:</b>	Compressed Gas Cylinder under pressure (typically 240 -1000 psig)
<b>Odor, Color, Grade:</b>	Compressed gas. Carbon Monoxide is colorless and odorless.
<b>Odor threshold</b>	<i>No Data Available</i>
<b>pH</b>	<i>Not Applicable</i>
<b>Melting point</b>	<i>Not Applicable</i>
<b>Boiling Point</b>	-317.8 °F
<b>Flash Point</b>	No flash point
<b>Evaporation rate</b>	<i>Not Applicable</i>
<b>Flammability (solid, gas)</b>	Not Classified
<b>Flammable Limits(LEL)</b>	<i>Not Applicable</i>
<b>Flammable Limits(UEL)</b>	<i>Not Applicable</i>
<b>Vapor Pressure</b>	<i>Not Applicable</i>
<b>Vapor Density</b>	1.00 [ <i>Ref Std: AIR=1</i> ]
<b>Density</b>	1.28 g/l
<b>Specific Gravity</b>	<i>No Data Available</i>
<b>Solubility In Water</b>	<i>Not Applicable</i>
<b>Solubility- non-water</b>	<i>No Data Available</i>
<b>Partition coefficient: n-octanol/ water</b>	<i>No Data Available</i>
<b>Autoignition temperature</b>	<i>Not Applicable</i>
<b>Decomposition temperature</b>	<i>Not Applicable</i>
<b>Viscosity</b>	<i>Not Applicable</i>
<b>Volatile Organic Compounds</b>	<i>Not Applicable</i>
<b>Percent volatile</b>	100 %
<b>VOC Less H2O &amp; Exempt Solvents</b>	<i>Not Applicable</i>

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

**10.2. Chemical stability**

Stable.

**10.3. Possibility of hazardous reactions**

Hazardous polymerization will not occur.

**10.4. Conditions to avoid**

Heat

**10.5. Incompatible materials**

None known.

**10.6. Hazardous decomposition products**

<u>Substance</u>	<u>Condition</u>
None known.	Not Specified

**SECTION 11: Toxicological information**

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

**11.1. Information on Toxicological effects**

**Signs and Symptoms of Exposure**

Based on test data and/or information on the components, this material may produce the following health effects:

**Inhalation:**

Intentional concentration and inhalation may be harmful or fatal.

Simple Asphyxiation: Signs/symptoms may include increased heart rate, rapid respirations, drowsiness, headache, incoordination, altered judgement, nausea, vomiting, lethargy, seizures, coma, and may be fatal.

**Skin Contact:**

Contact with the skin during product use is not expected to result in significant irritation.

**Eye Contact:**

Contact with the eyes during product use is not expected to result in significant irritation.

**Ingestion:**

No known health effects.

**Toxicological Data**

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

**Acute Toxicity**

Name	Route	Species	Value
Overall product	Inhalation-Gas(4 hr)		No data available; calculated ATE > 50,000 ppm

NITROGEN	Dermal		LD50 estimated to be > 5,000 mg/kg
NITROGEN	Inhalation-Gas		LC50 estimated to be > 50,000 ppm
NITROGEN	Ingestion		LD50 estimated to be > 5,000 mg/kg
OXYGEN	Dermal		estimated to be > 5,000 mg/kg
OXYGEN	Inhalation-Dust/Mist		estimated to be > 12.5 mg/l
OXYGEN	Inhalation-Vapor		estimated to be > 50 mg/l
OXYGEN	Ingestion		estimated to be > 5,000 mg/kg
CARBON MONOXIDE	Dermal		estimated to be > 5,000 mg/kg
CARBON MONOXIDE	Inhalation-Dust/Mist		estimated to be > 12.5 mg/l
CARBON MONOXIDE	Inhalation-Vapor		estimated to be > 50 mg/l
CARBON MONOXIDE	Ingestion		estimated to be > 5,000 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
NITROGEN	Professional judgement	No significant irritation

**Serious Eye Damage/Irritation**

Name	Species	Value
NITROGEN	Professional judgement	No significant irritation

**Skin Sensitization**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Respiratory Sensitization**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Germ Cell Mutagenicity**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Carcinogenicity**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Specific Target Organ Toxicity - repeated exposure**

For the component/components, either no data are currently available or the data are not sufficient for classification.

#### **Aspiration Hazard**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.**

## **SECTION 12: Ecological information**

### **Ecotoxicological information**

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

### **Chemical fate information**

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

## **SECTION 13: Disposal considerations**

### **13.1. Disposal methods**

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

Prior to disposal, consult all applicable authorities and regulations to insure proper classification. Product may be released to the atmosphere. Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. The facility should be equipped to handle gaseous waste. Empty and clean product containers may be disposed as non-hazardous waste. Consult your specific regulations and service providers to determine available options and requirements.

**EPA Hazardous Waste Number (RCRA):** Not regulated

## **SECTION 14: Transport Information**

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

## **SECTION 15: Regulatory information**

### **15.1. US Federal Regulations**

Contact 3M for more information.

### **311/312 Hazard Categories:**

Fire Hazard - No    Pressure Hazard - Yes    Reactivity Hazard - No    Immediate Hazard - No    Delayed Hazard - No

### **15.2. State Regulations**

Contact 3M for more information.

### **15.3. Chemical Inventories**

The components of this product are in compliance with the new substance notification requirements of CEPA.

The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

#### 15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### SECTION 16: Other information

#### NFPA Hazard Classification

Health: 0 Flammability: 0 Instability: 0 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

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