

## 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product Code:</b>	00014	
<b>Product Name:</b>	Ethylene Compressed	
<b>Company Name:</b>	Gas Innovations	<b>Phone Number:</b>
	18005 E. Hwy 225	+1 (281)471-2200
	La Porte, TX 77571	
<b>Web site address:</b>	www.gasinnovations.com	
<b>Emergency Contact:</b>	3E (within United States)	+1 (866)303-2640
<b>Information:</b>	Infotrac (outside of United States)	+1 (352)323-3500

## 2. HAZARDS IDENTIFICATION

**Flammable Gases, Category 1**

**Gas Under Pressure, Compressed gas**

**Specific Target Organ Toxicity (single exposure), Category 3**



**GHS Signal Word:** Danger

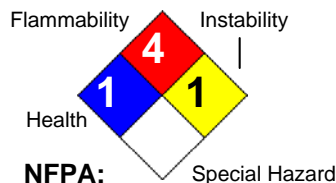
**GHS Hazard Phrases:** H220 - Extremely flammable gas.  
H280 - Containers gas under pressure; may explode if heated.  
H335 - May cause respiratory irritation.

**GHS Precaution Phrases:** P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P261 - Avoid breathing gas/vapors.  
P271 - Use only outdoors or in a well-ventilated area.

**GHS Response Phrases:** P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely.  
P381 - Eliminate all ignition sources if safe to do so.  
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.

**GHS Storage and Disposal Phrases:** P410+403 - Protect from sunlight and store in well-ventilated place. P403+233 - Store container tightly closed in well-ventilated place.  
P501 - Dispose of contents/containers in accordance with local/regional/national/international regulations.

**Hazard Rating System:**



**Potential Health Effects (Acute and Chronic):** Potential Health Effects.

**Inhalation:** May be harmful if inhaled. May cause respiratory tract irritation. Vapors may cause drowsiness and dizziness. This material can act as a simple asphyxiant by displacement of air.

**Skin Contact:** May be harmful if absorbed through the skin. May cause skin irritation.

**Eye Contact:** May cause eye irritation.

**Ingestion:** May be harmful if swallowed.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Hazardous Components (Chemical Name)	Concentration
74-85-1	Ethylene	100 %

### 4. FIRST AID MEASURES

#### Emergency and First Aid

##### Procedures:

- In Case of Inhalation:** If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.
- In Case of Skin Contact:** Wash off with soap and plenty of water. Consult a physician.
- In Case of Eye Contact:** Immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids apart and flush eyes with plenty of water. After initial flushings, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and tested by medical personnel.
- In Case of Ingestion:** Not expected to be a primary route of exposure. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Signs and Symptoms Of Exposure:** Nausea. Dizziness. Headache. Narcosis.

##### Exposure:

**Note to Physician:** Consult a physician. Show this safety data sheet to the doctor in attendance.

### 5. FIRE FIGHTING MEASURES

**Flash Pt:** -136 C (-213 F) Method Used: Unknown

**Explosive Limits:** LEL: 2.7 %(V) UEL: 36 %(V)

**Autoignition Pt:** 450 C (842 F)

**Suitable Extinguishing Media:** Stop the flow of gas. IF the flow cannot be stopped, let the fire burn out while cooling the cylinder and the surrounding areas using a water spray. Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam.

**Fire Fighting Instructions:** Personnel may have to wear approach-type protective suits and positive pressure self-contained breathing apparatus. Firefighters' turnout gear may be inadequate. Cylinders exposed to fire may rupture with violent force. Extinguishing surrounding fire and keep cylinders cool by applying water from a maximum possible distance with a water spray. Flammable gases may spread from a spill after the fire is extinguished and be subject to re-ignition.

**Flammable Properties and Hazards:** High temperatures and fire conditions can result in the formation of carbon monoxide and carbon dioxide.

### 6. ACCIDENTAL RELEASE MEASURES

**Protective Precautions, Protective Equipment and Emergency Procedures:** Use proper personal protective equipment as indicated in Section 8.

**Environmental Precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Steps To Be Taken In Case Material Is Released Or Spilled:** Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist or gas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

**7. HANDLING AND STORAGE**

**Precautions To Be Taken in Handling:** Avoid inhalation of vapor or mist. Keep away from heat, sparks and flame. Keep away from sources of ignition - No smoking. Use spark-proof tools and explosion proof equipment. Use in a closed system. Secure the cylinder to prevent it from falling or being knocked over. Leak check the lines and equipment. Have an emergency plan covering steps to be taken in the event of an accidental release.

Wear leather safety gloves and safety shoes when handling cylinders. Protect cylinders from physical damage; do not drag, roll, slide or drop. While moving cylinder, always keep in place removable valve cover. Never attempt to lift a cylinder by its cap; the cap is intended solely to protect the valve. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Never insert an object (e.g., wrench, screwdriver, pry bar) into cap openings; doing so may damage the valve and cause a leak. Use an adjustable strap wrench to remove over-tight or rusted caps. Slowly open the valve. If the valve is hard to open, discontinue use and contact your supplier. Close the container valve after each use; keep closed even when empty. Never apply flame or localized heat directly to any part of the container. High temperatures may damage the container and could cause the pressure relief device to fail prematurely, venting the container contents.

**Precautions To Be Taken in Storing:** Cylinders should be stored and used in dry, well-ventilated areas away from sources of heat or ignition. Store away from oxidizers. Protect containers against damage.

**Other Precautions:** When handling product under pressure, use piping and equipment adequately designed to withstand the pressures to be encountered. Never work on a pressurized system. Use a back flow preventive device in the piping. Gases can cause rapid suffocation because of oxygen deficiency; store and use with adequate ventilation. If a leak occurs, close the container valve and blow down the system in a safe and environmentally correct manner in compliance with all international, federal/national, state/provincial, and local laws; then repair the leak. Never place a container where it may become part of an electrical circuit.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
74-85-1	Ethylene	No data.	TLV: Simple asphyxiant ppm	No data.

**Respiratory Equipment (Specify Type):** No special respiratory protection equipment is required with adequate ventilation. Where protection is desired, use multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Eye Protection:** Face shield and safety glasses.

**Protective Gloves:** Wear neoprene gloves during cylinder change out or wherever contact with product is possible.

**Other Protective Clothing:** Wear metatarsal shoes for cylinder handling, and protective clothing where needed.

**Engineering Controls (Ventilation etc.):** Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility, and a safety shower is recommended.

**Work/Hygienic/Maintenance Practices:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical States:</b>	[ X ] Gas [ ] Liquid [ ] Solid
<b>Appearance and Odor:</b>	Appearance: colorless. Odor: sweetish odor.
<b>Freezing Point:</b>	-169 C (-272 F)
<b>Boiling Point:</b>	-104 C (-155 F)
<b>Autoignition Pt:</b>	450 C (842 F)
<b>Flash Pt:</b>	-136 C (-213 F) Method Used: Unknown
<b>Explosive Limits:</b>	LEL: 2.7 %(V) UEL: 36 %(V)
<b>Specific Gravity (Water = 1):</b>	1.26 at 0 C (32.0 F)
<b>Density:</b>	NA
<b>Vapor Pressure (vs. Air or mm Hg):</b>	40,432 MBAR at -1.5 C (29.3 F)
<b>Vapor Density (vs. Air = 1):</b>	1.0
<b>Evaporation Rate:</b>	NA
<b>Solubility in Water:</b>	Negligible
<b>Saturated Vapor Concentration:</b>	NA
<b>Viscosity:</b>	NA
<b>pH:</b>	NA
<b>Percent Volatile:</b>	No data.

**10. STABILITY AND REACTIVITY**

<b>Stability:</b>	Unstable [ ] Stable [ X ]
<b>Conditions To Avoid - Instability:</b>	Heat, flames and sparks. High pressure.
<b>Incompatibility - Materials To Avoid:</b>	Strong oxidizing agents, carbontetrachloride, chlorine, Copper, Polymerization initiators.
<b>Hazardous Decomposition Or Byproducts:</b>	High temperatures and fire conditions can result in the formation of carbon monoxide and carbon dioxide.
<b>Possibility of Hazardous Reactions:</b>	Will occur [ X ] Will not occur [ ]
<b>Conditions To Avoid - Hazardous Reactions:</b>	No data available.

## Ethylene Compressed

Printed: 08/12/2016

Revision: 08/12/2016

Supersedes Revision: 09/21/2009

## 11. TOXICOLOGICAL INFORMATION

<b>Toxicological Information:</b>	Acute toxicity: No data available.		
	Epidemiology: No information available.		
	Teratogenicity: No information available.		
	Reproductive Effects: No information available.		
	Mutagenicity: No information available.		
	Neurotoxicity: No information available.		
<b>Irritation or Corrosion:</b>	No data available.		
<b>Sensitization:</b>	No data available.		
<b>Carcinogenicity:</b>	NTP? No	IARC Monographs? No	OSHA Regulated? No

## 12. ECOLOGICAL INFORMATION

<b>General Ecological Information:</b>	Environmental: No information available.
	Physical: No information available.
<b>Results of PBT and vPvB assessment:</b>	No data available.
<b>Persistence and Degradability:</b>	No data available.
<b>Bioaccumulative Potential:</b>	No data available.
<b>Mobility in Soil:</b>	No data available.

## 13. DISPOSAL CONSIDERATIONS

<b>Waste Disposal Method:</b>	Do not attempt to dispose of residual or unused quantities. Return container to supplier. Dispose of contents/containers in accordance with local/regional/national/international regulations.
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## 14. TRANSPORT INFORMATION

## LAND TRANSPORT (US DOT):

<b>DOT Proper Shipping Name:</b>	Ethylene	
<b>DOT Hazard Class:</b>	2.1	FLAMMABLE GAS
<b>UN/NA Number:</b>	UN1062	



## AIR TRANSPORT (ICAO/IATA):

**ICAO/IATA Shipping Name:** Not permitted on passenger aircraft.

## 15. REGULATORY INFORMATION

## EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
74-85-1	Ethylene	No	No	Yes

## Other US EPA or State Lists

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
74-85-1	Ethylene	TSCA: Yes - Inventory; CA PROP.65: No; CA TAC, Title 8: TAC; MA Oil/HazMat: Yes; MI CMR, Part 5: No; NC TAP: No; NJ EHS: Yes - 0873; NY Part 597: No; PA HSL: Yes - E; SC TAP: No; WI Air: No

CAS #	Hazardous Components (Chemical Name)	International Regulatory Lists
74-85-1	Ethylene	Canadian DSL: Yes; Canadian NDSL: No; Mexico INSQ: Yes - 1962; Australia ICS: Yes; New Zealand IOC: Yes; China IECSC: Yes; Japan ENCS: Yes - (2)-12; Korea ECL: Yes - KE-13226; Philippines ICCS: Yes; REACH: Yes - (R), (P)

## 16. OTHER INFORMATION

**Revision Date:** 03/29/2015

**Additional Information About This Product:** No data available.

**This Product:**

**Company Policy or**

**Disclaimer:**

The information, recommendations, and suggestions herein were compiled from reference material and other sources believed to be reliable. However, the SDS's accuracy or completeness is not guaranteed by Gas Innovations or its affiliates, nor is any responsibility assumed or implied for any loss or damage resulting from inaccuracies or omissions. Since conditions of use are beyond our control, no warranties of merchantability of fitness for a particular purpose are expressed or implied. This SDS is not intended as a license to operate under, or a recommendation to infringe on, any patents. Appropriate warnings and safe handling procedures should be provided to handlers and users.