



Material Safety Data Sheets

**MSDS No: M-21911****Date: 10/22/2009**

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**EMERGENCY PHONE NUMBER:** (215) 766-8861

## 1. CHEMICAL PRODUCT

PRODUCT NAME: [ETHYLENE IN AIR](#)SYNONYMS: [None](#)

## 2. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Ingredient Name</u>	<u>Formula</u>	<u>CAS #</u>	<u>Concentration</u>	<u>ACGIH TLV</u>	<u>Exposure Limits (PPM)</u>		
					<u>OSHA PEL</u>	<u>MAC</u>	<u>Other STEL</u>
<a href="#">ETHYLENE</a>	C2H4	<a href="#">74-85-1</a>	.0001-1.9 PCT	200	NE	NE	NE
<a href="#">AIR</a>	O2N2	<a href="#">132259-10-0</a>	BALANCE	NE	NE	NE	NE

Note: NE = NONE ESTABLISHED

S/A = SIMPLE ASPHYXIANT

## 3. HAZARD IDENTIFICATION

\* \* \* EMERGENCY OVERVIEW \* \* \*

[High pressure gas.](#)  
[May accelerate combustion.](#)

### POTENTIAL HEALTH EFFECTS

ROUTES OF ENTRY: [Inhalation](#)ACUTE EFFECTS: [Mixture acts as a simple asphyxiant by displacing air necessary for life. Symptoms include rapid respiration, muscular incoordination, fatigue, dizziness, nausea, vomiting, unconsciousness, and death.](#)CHRONIC EFFECTS: [None known](#)MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: [None known](#)OTHER EFFECTS OF OVEREXPOSURE: [None](#)

CARCINOGENICITY (US ONLY):

NTP - [No](#)IARC MONOGRAPHS - [No](#)OSHA REGULATED - [No](#)

#### 4. FIRST AID MEASURES

INHALATION: Immediately remove victim to fresh air.If breathing has stopped, give artificial respiration.If breathing is difficult, give oxygen.

EYE CONTACT: None

SKIN CONTACT: None

INGESTION: None

IN EVENT OF EXPOSURE, CONSULT A PHYSICIAN

NOTE TO PHYSICIAN: None

#### 5. FIRE FIGHTING MEASURES

FLASH POINT: Nonflammable

AUTOIGNITION TEMPERATURE: N/Ap

FLAMMABLE LIMITS: Nonflammable

LOWER:

UPPER:

EXTINGUISHING MEDIA: Use what is appropriate for surrounding fire.

SPECIAL FIRE FIGHTING INSTRUCTION AND EQUIPMENT: Wear self-contained breathing apparatus and full protective clothing.Keep fire exposed cylinders cool with water spray.If possible, stop the product flow.

HAZARDOUS COMBUSTION PRODUCTS: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: Cylinder rupture may occur under fire conditions.Compressed air at high pressure will accelerate the combustion of flammable materials.

#### 6. ACCIDENTAL RELEASE MEASURES

CLEAN UP PROCEDURES: Evacuate and ventilate area.Shut off source if possible and remove source of heat.Remove leaking cylinder to exhaust hood or safe outdoor area.

SPECIALIZED EQUIPMENT: None

#### 7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING: Secure cylinder when using to protect from falling.Use suitable hand

truck to move cylinders.

PRECAUTIONS TO BE TAKEN IN STORAGE: Store in well ventilated areas.Keep valve protection cap on cylinders when not in use.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide adequate general and local exhaust ventilation to avoid asphyxiation.

EYE / FACE PROTECTION: Safety glasses

SKIN PROTECTION: None

RESPIRATORY PROTECTION: Use a self-contained breathing apparatus in case of emergency or non-routine use.

OTHER PROTECTIVE EQUIPMENT: Safety shoes when handling cylinders.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Colorless

ODOR: Odorless

PHYSICAL PRESSURE: Gas

VAPOR PRESSURE: N/Ap

VAPOR DENSITY (AIR=1): .9868

BOILING POINT (C): N/Ap

SOLUBILITY IN WATER: @20 deg.C: 18.68 cm<sup>3</sup>/l

SPECIFIC GRAVITY (H<sub>2</sub>O=1): Gas

EVAPORATION RATE: N/Ap

ODOR THRESHOLD: N/Ap

## 10. STABILITY AND REACTIVITY

STABILITY: Stable under normal storage conditions.

CONDITIONS TO AVOID: Storage in poorly ventilated areas.Storage near a heat source.

MATERIALS TO AVOID: Ethylene: Reacts violently with AlCl<sub>3</sub>, O<sub>3</sub>, CCl<sub>4</sub>, benzoyl peroxide, bromotrichloromethane, and nitromethane with AlCl<sub>3</sub>.

HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION: None

## 11. TOXICOLOGICAL INFORMATION

LETHAL CONCENTRATION (LC50): NONE ESTABLISHED

LETHAL DOSE 50 (LD50): N/Ap

TERATOGENICITY: N/Ap

REPRODUCTIVE EFFECTS: N/Ap

MUTAGENICITY: N/Ap

## 12. ECOLOGICAL INFORMATION

No adverse ecological effects are expected.

## 13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose of non-refillable cylinders in accordance with federal, state and local regulations. Allow gas to vent slowly to atmosphere in an unconfined area or exhaust hood. If the cylinders are the refillable type, return cylinders to supplier with any valve outlet plugs or caps secured and valve protection caps in place.

## 14. TRANSPORT INFORMATION

CONCENTRATION: .0001-1.9%

DOT DESCRIPTION (US ONLY):

PROPER SHIPPING NAME: Compressed gases, n.o.s.

HAZARD CLASS: 2.2 (nonflammable gas)

IDENTIFICATION NUMBER: UN1956

REPORTABLE QUANTITIES: None

LABELING: NONFLAMMABLE GAS

ADR / RID (EU Only): Class 2,1a

SPECIAL PRECAUTIONS: Cylinders should be transported in a secure upright position in a well ventilated truck.

## 15. REGULATORY INFORMATION

OSHA: Process Safety Management: Materials are not listed in appendix A of 29 CFR 1910.119 as highly hazardous

chemicals.

TSCA: Materials are listed in TSCA inventory.

SARA: The threshold planning quantity for this mixture is 10,000 lbs.

EU NUMBER: N/Ap

NUMBER IN ANNEX 1 OF DIR 67/548: Mixture is not listed in annex 1.

EU CLASSIFICATION: N/Av

R: N/Av

S: 9,23

## 16. OTHER INFORMATION

OTHER PRECAUTIONS: Protect containers from physical damage. Do not deface cylinders or labels. Cylinders should be refilled by qualified producers of compressed gas. Shipment of a compressed gas cylinder which has not been filled by the owner or with his written consent is a violation of federal law (49 CFR).

ABBREVIATIONS: N/Ap - Not Applicable N/Av - Not Available SA - Simple Asphyxiant NE - None Established

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