



## MATERIAL SAFETY DATA SHEETS

DATE: 03/01/98

Supplier Address: Plumsteadville, PA 18949-0310  
Emergency Phone: 215-766-8861

### 1. CHEMICAL PRODUCT

PRODUCT NAME: ETHANOL IN NITROGEN

SYNONYMS: None

### 2. COMPOSITION, INFORMATION ON INGREDIENTS

Ingredient Name	Formula	CAS#	Concentration	Exposure Limits (PPM)			
				ACGIH TLV	OSHA PEL	MAC	Other STEL
ETHANOL	C <sub>2</sub> H <sub>6</sub> O	64-17-5	1-1000 PPM	1000	1000	NE	NE
NITROGEN	N <sub>2</sub>	7727-37-9	BALANCE	S/A	S/A	S/A	S/A

Note: NE = NONE ESTABLISHED  
S/A = SIMPLE ASPHYXIAN

### 3. HAZARD IDENTIFICATION

\*\*\* EMERGENCY OVERVIEW \*\*\*  
High pressure gas  
Can cause rapid suffocation

#### POTENTIAL HEALTH EFFECTS

ROUTES OF ENTRY: Inhalation

ACUTE EFFECTS: Mixture acts as a simple asphyxiate 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 THE EVENT OF EXPOSURE, CONSULT A PHYSICIAN

NOTE TO PHYSICIANS: None

### 5. FIRE FIGHTING MEASURES

FLASH POINT: Nonflammable

AUTOIGNITION TEMPERATURE: N/Ap

FLAMMABLE LIMITS: Nonflammable

EXTINGUISHING MEDIA: Use what is appropriate for surrounding fire.

SPECIAL FIRE FIGHTING INSTRUCTIONS AND EQUIPMENT: Wear self-contained breathing apparatus and full protective clothing.

HAZARDOUS COMBUSTION PRODUCTS: Toxic carbon monoxide may be given off during combustion

UNUSUAL FIRE AND EXPLOSION HAZARDS: Cylinder rupture may occur under fire conditions.

### 6. ACCIDENTAL RELEASE MEASURES

CLEAN UP PROCEDURES: Evacuate and ventilate area. Remove leaking cylinder to exhaust hood or safe outdoor area.

SPECIALIZED EQUIPMENT: None

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**7. HANDLING AND STORAGE**

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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.

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**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

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

**PERSONAL PROTECTION**

EYE/FACE PROTECTION: Safety glasses

SKIN PROTECTION: None

RESPIRATORY PROTECTION: In case of leakage, use self-contained breathing apparatus.

OTHER PROTECTIVE EQUIPMENT: Safety shoes when handling cylinders.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

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APPEARANCE: Colorless

ODOR: sweet odor.

PHYSICAL PRESSURE: Gas

VAPOR PRESSURE: N/Ap

VAPOR DENSITY: (Air=1) : 0.967

BOILING POINT: (C) : N/Ap

SOLUBILITY IN WATER: cm<sup>3</sup>/100cm<sup>3</sup> H<sub>2</sub>O 1.485

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

EVAPORATION RATE: Gas

ODOR THRESHOLD: N/Ap

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**10. STABILITY AND REACTIVITY**

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STABILITY: Stable under normal storage conditions.

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

MATERIALS TO AVOID: Nitrogen reacts with Li, Nd, and Ti at high temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION: None

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**11. TOXICOLOGICAL INFORMATION**

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LETHAL CONCENTRATION (LC<sub>50</sub>) : None established

LETHAL DOSE 50 (LD<sub>50</sub>) : N/Ap

TERATOGENICITY: N/Ap

REPRODUCTIVE EFFECTS: N/Ap

MUTAGENICITY: N/Ap

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**12. ECOLOGICAL INFORMATION**

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No adverse ecological effects are expected

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**13. DISPOSAL CONSIDERATION**

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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.

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**14. TRANSPORT INFORMATION**

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CONCENTRATION: 1-1000 ppm

DOT DESCRIPTION (US Only)

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

HAZARD CLASS: 2.2 (nonflammable)

IDENTIFICATION NUMBER: UN 1956

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.

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**15. REGULATORY INFORMATION**

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

TSCA: Mixture is not 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: 20

S: 9

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**16. OTHER INFORMATION**

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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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