

**SCOTT SPECIALTY GASES****MATERIAL SAFETY DATA SHEETS**

DATE: 2/18/98

SUPPLIER ADDRESS: 1290 COMBERMERE STREET

TROY, MI 48083

EMERGENCY PHONE: (248) 589-2950  
NUMBER**1. CHEMICAL PRODUCT**

PRODUCT NAME: ETHANOL IN NITROGEN

SYNONYMS: None

**2. COMPOSITION, INFORMATION ON INGREDIENTS**

Ingredient Name	Formula	CAS#	Concentration	Exposure Limits (PPM)			Other STEL
				ACGIH TLV	OSHA PEL	MAC	
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 ASPHYXIANT

**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 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.

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

**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.

**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.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE: Colorless

ODOR: Sweet odor.

PHYSICAL STATE: 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/Av

**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: Nitrogen reacts with Li, Nd, and Ti at high temperatures.

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.

**14. TRANSPORT INFORMATION**

CONCENTRATION: 1-1000 ppm  
 DOT DESCRIPTION (US ONLY):  
 PROPER SHIPPING NAME: Compressed gases, n.o.s.  
 HAZARD CLASS: 2.2 (nonflammable)  
 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: 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

**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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