



# Scott Specialty Gases

M-20511/

SCOTT\_SPECIALTY\_GASES

MATERIAL SAFETY DATA SHEETS

DATE: 10/21/97

SUPPLIER ADDRESS: 2330 HAMILTON BOULEVARD  
 SOUTH PLAINFIELD, NJ 07080  
 EMERGENCY PHONE: (908) 754-7700  
 NUMBER

## 1. CHEMICAL PRODUCT

PRODUCT NAME: AMMONIA IN NITROGEN

SYNONYMS: None

## 2. COMPOSITION, INFORMATION ON INGREDIENTS

Ingredient Name	Formula	CAS#	Concentration	Exposure Limits (PPM)		
				ACGIH TLV	OSHA PEL	MAC
AMMONIA	NH3	7664-41-7	.0026-10 PCT	25	50	25
NITROGEN	N2	7727-37-9	BALANCE	S/A	S/A	S/A

Note: S/A = SIMPLE ASPHYXIANT

## 3. HAZARD IDENTIFICATION

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

Corrosive liquid and gas under pressure.

Can cause rapid suffocation.

Can cause eye, skin, and respiratory tract burns.

POTENTIAL HEALTH EFFECTS

ROUTES OF ENTRY: Inhalation , Skin

ACUTE EFFECTS: Irritating and corrosive to skin, eyes, respiratory tract, and mucous membrane. Symptoms include dyspnea, coughing, chest pains, and pulmonary edema. Mixture can act as a simple asphyxiant by displacing air necessary for life. Symptoms include rapid respiration, muscular incoordination, fatigue, dizziness, nausea, vomiting, unconsciousness, and death. Liquid contact with the eye causes severe corneal injury.

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

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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: Immediately flush with copious amounts of water for at least 15 minutes.

SKIN CONTACT: Immediately flush with copious amounts of water for at least 15 minutes while removing contaminated clothing.

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:

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 not in use.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide adequate general and local exhaust ventilation to maintain concentrations below exposure limits and to avoid asphyxiation.

## PERSONAL PROTECTION

EYE/FACE PROTECTION: Safety glasses

SKIN PROTECTION: Impervious gloves, coveralls, boots, and/or other respiratory protective clothing.

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

OTHER PROTECTIVE EQUIPMENT: Safety when handling cylinders.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Colorless

ODOR: Pungent (NH<sub>3</sub>)

PHYSICAL STATE: Gas

VAPOR PRESSURE: N/AP

VAPOR DENSITY (AIR=1): 0.968-0.930

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. Shut off source if possible and remove source of heat. Douse with water to retard atmospheric dispersion, ventilate

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#### 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: Copper, zinc, mercury and their alloys, and strong mineral acids. 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. If the cylinders are the refillable type, return cylinders to

BOILING POINT (C): N/Ap  
SOLUBILITY IN WATER: 0.899  
SPECIFIC GRAVITY (H2O=1): Gas  
EVAPORATION RATE: Gas  
ODOR THRESHOLD: N/Av

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: This component is listed in appendix A 1910.119 as a highly hazardous chemical.

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: This mixture is not listed in annex 1.

EU CLASSIFICATION: N/Ap

R: 20, 36/37/38

S: 9

#### 16. OTHER INFORMATION

OTHER PRECAUTIONS: Protect container 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

ABBREVIATIONS:

N/Ap - Not Applicable

N/Av - Not Available

supplier with any valve outlet plugs or caps secured and valve protection caps in place.

14. TRANSPORT INFORMATION

CONCENTRATION: 0.0051-10%  
DOT DESCRIPTION (US ONLY):  
PROPER SHIPPING NAME: Compressed gases,  
n.o.s.  
HAZARD CLASS: 2.2 (nonflammable)  
IDENTIFICATION NUMBER: UN1956  
REPORTABLE QUANTITIES: (NH3) 100 lbs.  
LABELING: NONFLAMMABLE GAS

SA - Simple Asphyxiant  
NE - None Established

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