



Scott Specialty Gases

M-21252/

SCOTT_SPECIALTY_GASES _____

MATERIAL SAFETY DATA SHEETS

DATE: 11/14/00

SUPPLIER ADDRESS: 1290 COMBERMERE STREET

TROY, MI 48083

EMERGENCY PHONE: (248) 589-2950

NUMBER

1. CHEMICAL PRODUCT

PRODUCT NAME: CARBON DIOXIDE IN NITROGEN SYNONYMS: None

2. COMPOSITION, INFORMATION ON INGREDIENTS

Ingredient Name	Formula	CAS#	Concentration	Exposure Limits (PPM)		
				ACGIH TLV	OSHA PEL	MAC
CARBON DIOXIDE	CO2	124-38-9	.51-90 PCT	5000	5000	5000
NITROGEN	N2	7727-37-9	BALANCE	S/A	S/A	S/A

Note: 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: Exposure to carbon dioxide at 1-4% concentrations result in increased respiratory volume. Concentrations greater than 4% produce labored breathing and is dangerous for even a few minutes. 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.

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: 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/Av

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.

6. ACCIDENTAL RELEASE MEASURES7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING: Secure cylinder when using to protect from falling. Use suitable hand 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: None

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: Odorless

PHYSICAL STATE: Gas

VAPOR PRESSURE: @20 deg.C: N/Av

VAPOR DENSITY (AIR=1): 0.970-1.080

BOILING POINT (C): N/Av

SOLUBILITY IN WATER: cm³/100cm³ H₂O
1.485

SPECIFIC GRAVITY (H₂O=1): Gas

EVAPORATION RATE: Gas

CLEAN UP PROCEDURES: Shut off source if possible and remove source of heat. Remove leaking cylinder to exhaust hood or safe outdoor area if this can be done safely.

SPECIALIZED EQUIPMENT: None

MATERIALS TO AVOID: Carbon dioxide reacts with alkaline materials. Carbon dioxide decomposes when heated above 1700 degrees celsius. 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 supplier with any valve outlet plugs or caps secured and valve protection caps in place.

14. TRANSPORT INFORMATION

CONCENTRATION: 0.51-90%

DOT DESCRIPTION (US ONLY):

ODOR THRESHOLD: None

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal storage conditions.

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

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15. REGULATORY INFORMATION

OSHA: Process Safety Management: This component is not listed in appendix 29 CFR 1910.119 as a highly hazardous chemical.

TSCA: Mixture is not listed in TSCA inventory.

SARA: Mixture is listed in annex 1

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 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 CFR 171.15).

ABBREVIATIONS:

N/Ap - Not Applicable

N/Av - Not Available

SA - Simple Asphyxiant

NE - None Established

DISCLAIMER: Information included in this document is given to the best of our knowledge.

PROPER SHIPPING NAME: Compressed gases,
n.o.s.
HAZARD CLASS: 2.2 (nonflammable gas)
IDENTIFICATION NUMBER: UN1956
REPORTABLE QUANTITIES: None
LABELING: NONFLAMMABLE GAS

knowledge, however, no warranty is
that the information is accurate c
complete. We do not accept any
responsibility for damages by the
the document.

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

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