

Scott Specialty Gases - eScott MSDS

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Scott Specialty Gases

M-7022-5/E-1

SCOTT_SPECIALTY_GASESMATERIAL SAFETY DATA SHEETS

DATE: 1/23/04

SUPPLIER ADDRESS: 1290 COMBERMERE STREET
TROY, MI 48083

EMERGENCY PHONE: (248) 589-2950
NUMBER

1. CHEMICAL PRODUCT

PRODUCT NAME: CARBON DIOXIDE AND OXYGEN IN NITROGEN
SYNONYMS: None

2. COMPOSITION, INFORMATION ON INGREDIENTS

| Ingredient Name | Formula | CAS# | Concentration | Exposure Limits (PPM) | | | |
|-----------------|---------|-----------|-----------------|-----------------------|----------|------|------------|
| | | | | ACGIH TLV | OSHA PEL | MAC | Other STEL |
| CARBON DIOXIDE | CO2 | 124-38-9 | .5001-20 PCT | 5000 | 5000 | 5000 | 30000 |
| OXYGEN | O2 | 7782-44-7 | .0001-19.49 PCT | NE | NE | NE | NE |
| NITROGEN | N2 | 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.

Can increase respiration and heart rate.

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. 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.

CHRONIC EFFECTS: None

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: None

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

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

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.

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.
SPECIALIZED EQUIPMENT: None

being weakly acidic, reacts with alkaline materials to form carbonates and bicarbonates. Flammable and combustible materials, especially greases and oils. 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

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 shoes when handling cylinders.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Colorless
ODOR: Odorless
PHYSICAL STATE: Gas
VAPOR PRESSURE: N/Ap
VAPOR DENSITY (AIR=1): 0.970-1.106
BOILING POINT (C): N/Ap
SOLUBILITY IN WATER: 0.759
SPECIFIC GRAVITY (H2O=1): Gas
EVAPORATION RATE: Gas
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.
MATERIALS TO AVOID: Carbon dioxide,

Continued ...
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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/Ap

12. ECOLOGICAL INFORMATION

No adverse ecological effects are expected.

R: 20

S: 9

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.

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).

14. TRANSPORT INFORMATION

CONCENTRATION: 0.0001-20%

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.

ABBREVIATIONS:

N/Ap - Not Applicable

N/Av - Not Available

SA - Simple Asphyxiant

NE - None Established

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