

SCOTT SPECIALTY GASES -- CALIBRATING GASES, MIXTURE VARIOUS COMPONENTEN --  
6830-00-498-4241

===== Product Identification =====

Product ID:CALIBRATING GASES, MIXTURE VARIOUS COMPONENTEN

MSDS Date:01/01/1987

FSC:6830

NIIN:00-498-4241

MSDS Number: BGTGV

=== Responsible Party ===

Company Name:SCOTT SPECIALTY GASES

Address:ROUTE 611 NORTH

Box:D-11

City:PLUMSTEADVILLE

State:PA

ZIP:18949

Country:US

Info Phone

Num:215-766-8861;313-589-2950 (MI)

Emergency Phone Num:215-766-8861

Preparer's Name:RECORD DEVELOPED FROM 4

CAGE:51847

=== Contractor Identification ===

Company Name:SCOTT SPECIALTY GASES

Address:6141 EASTON RD (6141 ROUTE 611)

Box:310

City:PLUMSTEADVILLE

State:PA

ZIP:18934

Country:US

Phone:215-766-8861/ FAX: 215-766-0416

CAGE:51847

===== Composition/Information on Ingredients =====

Ingred Name:CARBON DIOXIDE

CAS:124-38-9

RTECS #:FF6400000

Fraction by Wt: 1.3%

OSHA PEL:5000 P

PM  
ACGIH TLV:5000PPM/30000STEL;93

Ingred Name:HYDROGEN  
CAS:1333-74-0  
RTECS #:MW8900000  
Fraction by Wt: 1.1%  
OSHA PEL:ASPHYXIAN  
ACGIH TLV:ASPHYXIAN

Ingred Name:OXYGEN  
CAS:7782-44-7  
RTECS #:RS2060000  
Fraction by Wt: 21%

Ingred Name:NITROGEN  
CAS:7727-37-9  
RTECS #:QW9700000  
Fraction by Wt: 76%  
ACGIH TLV:ASPHYXIAN; 9192

Ingred Name:TRACE AMTS OF: CARBON MONOXIDE 45 PPM;  
DICHLORODIFLUOROMETHANE 65 PPM; DICHLOROTETRAFLOROETHANE 65 PPM!

Ingred Name:DICHLOROTETRAFLUROETHANE (SARA III)  
CAS:7  
6-14-2  
RTECS #:KI1101000  
Fraction by Wt: 60-70%\*  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:1000 PPM  
ACGIH TLV:1000 PPM; 9192  
Ozone Depleting Chemical:1

Ingred Name:NITROGEN  
CAS:7727-37-9  
RTECS #:QW9700000  
Fraction by Wt: BALANCE  
Other REC Limits:NONE SPECIFIED  
ACGIH TLV:ASPHYXIAN; 9192

===== Hazards Identification =====

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER.  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO  
Reports of Carcinogenicity:NTP:NO

IARC:NO OSHA:NO

Health Hazards Acute and Chronic:MIXTURE ACTS AS SIMPLE ASPHYXIANT, CONTACT WITH LIQUID CAN CAUSE FROSTBITE. BREATHING HIGH PRESSURE OXYGEN MAY CAUSE CENTRAL NERVOUS SYSSTEM DISTURBANCES.

Explanation of Carcinogenicity:NONE OF THE GASES IN THIS MIXTURE ARE CURRENTLY LISTED AS CARCINOGENIC BY OSHA, NTP OR IARC.

Effects of Overexposure:RAPID RESPIRATION, MUSCULAR INCOORDINATION, FATIGUE, NAUSEA AND VOMITING, UNCONSCIOUSNESS, LIGHTHEADEDNESS, GIDDINESS, CARDIAC

ARRHYTHMIAS, DISORIENTATION, SKIN CONTACT MAY CAUSE FROSTBITE, HEADACHE, VISUAL/HEARING DISTURBANCES, SEIZURES.

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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===== First Aid Measures =====

First Aid:REMOVE TO FRESH AIR. IF BREATHING HAS STOPPED, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. GET MEDICAL ATTENTION. IN CASE OF CONTACT WITH LIQUID, REMOVE VICTIM FROM SOURCE OF CONTACT. FLUSH AFFECTED AREA WITH LOTSOF TEPID WATER. DO NOT APPLY DIRECT HEAT. DO NOT RUB FROZEN AREA.

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===== Fire Fighting Measures =====

Flash Point:NONE

Lower Limits:4% (H2)

Upper Limits:75% (H2)

Extinguishing Media:DRY CHEMICAL, CARBON DIOXIDE, HALOGENATED GAS

Fire Fighting Procedures:DO NOT EXTINGUISH UNLESS FLOW OF GAS CAN BE STOPPED AT SOURCE. KEEP FIRE-EXPOSED CYLINDERS COOL WITH WATER SPRAY. WEAR SELF-CONTAINED BREATHING APPARATUS.

Unusual Fire/Explosion Hazar

d:HIGH OXIDIZING ATMOSPHERE INCREASES

CHANCE OF FIRES. FLASH DANGER IS PRESENT. CYLINDERS MAY RUPTURE. TOXIC FUMES MAY BE EMITTED DURING COMBUSTION.

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===== Accidental Release Measures =====

Spill Release Procedures:EVACUATE AND VENTILATE AREA. SHUT OFF SOURCE OF SPILL. REMOVE SOURCES OF HEAT AND IGNITION, AND IF POSSIBLE, COMBUSTIBLES.

Neutralizing Agent:NONE

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===== Handling and Storage =====

Handling and Storage Pr

Precautions: STORE IN WELL-VENTILATED AREAS ONLY.

KEEP VALVE PROTECTION CAP ON CYLINDERS WHEN NOT IN USE AND SECURE CYLINDER WHEN USING TO PROTECT FROM FALLING.

Other Precautions: USE SUITABLE HANDTRUCK TO MOVE CYLINDERS. BE SURE CYLINDER IS A CLOSED PRESSURIZED CYLINDER.

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===== Exposure Controls/Personal Protection =====

Respiratory Protection: USE A SELF-CONTAINED BREATHING APPARATUS IN CASE OF EMERGENCY.

Ventilation: PROVIDE ADEQUATE LOCAL EXHAUST VENTILATION TO MAINTAIN

CONCENTRATION BELOW EXPOSURE LIMITS.

Protective Gloves: RUBBER

Eye Protection: SAFETY GOGGLES

Other Protective Equipment: SAFETY SHOES, EYEWASH, EMERGENCY SHOWER.

Work Hygienic Practices: PROTECT CONTAINERS FROM PHYSICAL DAMAGE. DO NOT DEFACE CYLINDERS OR LABELS.

Supplemental Safety and Health

CYLINDERS SHOULD BE REFILLED BY QUALIFIED PRODUCERS OF COMPRESSED GASES. SHIPMENT OF A COMPRESSED GAS CYLINDER WHICH HAS NOT BEEN FILLED BY THE OWNER OR WITH HIS WRITTEN CONSENT IS A VI

OLATION OF

FEDERAL LAW.

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===== Physical/Chemical Properties =====

HCC: G4

Boiling Pt: B.P. Text: GAS

Vapor Pres: GAS

Evaporation Rate & Reference: GAS

Solubility in Water: SLIGHT

Appearance and Odor: CLEAR, COLORLESS GAS MIXTURE, SLIGHT ETHERAL ODOR FROM DICHLORODIFLUOROMETHANE

Percent Volatiles by Volume: 100 %

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===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid: YES

ALKALI OR ALKALINE EARTH METALS, OXIDIZ

ING AGENTS, PHOSPHINE,  
HYDRAZINE, ETHERS, ALCOHOLS, HYDROGEN SULFIDE, HYDROCARBON  
Stability Condition to Avoid:EXTREME TEMPERATURES, PHYSICAL DAMAGE  
Hazardous Decomposition Products:HYDROCHLOIC ACID, HYDROFLUORIC ACID,  
TOXIC FUMES OF PHOSGENE & FLUORIDE, HALOGENS, CARBONYL HALIDES.

===== Disposal Considerations =====

Waste Disposal Methods:RETURN CYLINDERS TO SUPPLIER FOR PROPER DISPOSAL  
WITH ANY VALVE OUTLET PLUGS OR CAPS SECURED AND VALVE PROTECTIO  
N  
CAP IN PLACE.

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