

MATERIAL SAFETY DATA SHEET
29 CFR 1910.1200 OSHA Hazard
Communication Rule Format

MINE SAFETY APPLIANCES COMPANY
P.O. Box 426
Pittsburgh, PA 15230
PHONE (412) 967-3000

This product contains nitrogen, a substance subject to the Pennsylvania Worker and Community Right-To-Know Act.

PRODUCT IDENTITY

LABEL IDENTITY - MSA P/N 812784 Calibration Check Gas,
30 ppm R - 123 in Nitrogen

CHEMICAL NAME - 2,2 - Dichloro - 1,1,1 - Trifluoroethane
in Nitrogen

ADDITIONAL IDENTITIES - MSA P/N 812784 Calibration Gas 30 ppm HCFC -
123 in Nitrogen

FORMULA - CHCl₂CF₃ in N₂

APPLICABLE CHEMICAL CONTENTS

| | % | TWA |
|--|---------|-------------------|
| CHCl ₂ CF ₃ (CAS 306-83-2) | 0.003 | None established* |
| Nitrogen (CAS 7727-37-9) | Balance | None |

NOTE: Gas Under Pressure, 1000 PSIG at 70°F
 Approx. 100 Liters Gas at Atmospheric Pressure

*A manufacturer suggests 10 ppm TWA

PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|--|
| APPEARANCE AND ODOR - Colorless, Odorless Gas Mixture | |
| BOILING POINT - N/A | SPECIFIC GRAVITY (H₂O = 1) - N/A |
| VAPOR PRESSURE - N/A | PERCENT VOLATILE BY VOLUME - N/A |
| VAPOR DENSITY (AIR = 1) - > 1 | |
| SOLUBILITY IN WATER - CHCl ₂ CF ₃ | -- approx. 62 cm ³ /100 ml (25°C) |
| Nitrogen | -- 2.3 cm ³ /100 ml (0°C) |

N/A - Not Applicable

TOL0173

MSA P/N 812784

1959

PHYSICAL HAZARD INFORMATION

PHYSICAL HAZARD - Compressed Gas, 1000 PSIG at 70°F

CONDITIONS OR MATERIALS TO AVOID - Avoid bases. Avoid powdered active metals such as aluminum, alkali metals or alkaline earth metals.

FLASH POINT - N/A

EXTINGUISHING MEDIA - This Calibration Gas Mixture Is Not Flammable

SPECIAL FIRE FIGHTING PROCEDURES - CHCl_2CF_3 decomposes at high temperatures yielding toxic halogen compounds. Use self-contained pressure demand type breathing apparatus with full facepiece.

UNUSUAL FIRE AND EXPLOSION HAZARDS - Gas Under Pressure, 1000 PSIG at 70°F. Do Not Exceed 120°F.

HEALTH HAZARDS

HEALTH HAZARDS - No TWA has been established for CHCl_2CF_3 . A manufacturer suggests 10 ppm TWA. Inhalation 4-hour LC50 (Rat) is 32,000 ppm. Skin absorption LD50 (Rabbit) is >2000 mg/kg. Nitrogen is an asphyxiant.

SIGNS AND SYMPTOMS OF EXPOSURE: None known for 30 ppm HCFC - 123. Significant dilution of ambient air by asphyxiants causes air hunger, increased breathing frequency, drowsiness, weakness, and ringing in ears.

PRIMARY ROUTES OF ENTRY - Inhalation

TARGET ORGANS - Lungs

MEDICAL CONDITIONS GENERALLY RECOGNIZED AS BEING AGGRAVATED BY EXPOSURE - No Information

EXPOSURE LIMITS - Not established for HCFC - 123. A manufacturer suggests 10 ppm TWA.

CARCINOGENICITY DATA - Neither Nitrogen nor HCFC - 123 is listed by NIOSH RTECS, IARC, NTP or OSHA.

EMERGENCY AND FIRST AID PROCEDURES - Remove victim from exposure. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

TOL0173

MSA P/N 812784

1959

SAFE HANDLING AND USE

HYGIENIC PRACTICES - Avoid Breathing Gas

PROTECTIVE MEASURES DURING REPAIR AND MAINTENANCE OF CONTAMINATED EQUIPMENT - N/A

PROCEDURES FOR SPILL OR LEAK CLEANUP - Ventilate Area

WASTE DISPOSAL - Do not puncture or incinerate cylinder. Before discarding cylinder, slowly release contents to a safe exhaust.

STORAGE - Store in a cool, dry, well-ventilated area. Do not exceed 120°F.

CONTROL MEASURES

PERSONAL PROTECTIVE EQUIPMENT - Due to the limited amount of gas in the cylinder, and the low release rate employed in instrument calibration, respiratory protection is not indicated under conditions of intended use.

ENGINEERING CONTROLS - Mechanical ventilation is suitable.

WORK PRACTICES - Avoid breathing gas. Use in well-ventilated areas. Follow the calibration procedure detailed in the MSA instruction manual provided with the instrument under calibration.

DATE OF PREPARATION - November 1994

The information provided herein has been compiled from sources believed to be reliable. However, Mine Safety Appliances Company makes no warranty as to the accuracy, completeness, or sufficiency of the information and in no event will Mine Safety Appliances Company be responsible for loss or damage of any nature whatsoever resulting from use of the information.