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This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience are gained. Please return to this website for the most current version.

HALON 1301 (Discontinued)

CEF11301

Revised 27-FEB-2002

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

Formula : CBrF₃

Tradenames and Synonyms

CC0111

Company Identification

MANUFACTURER/DISTRIBUTOR

DuPont Canada, Inc.
P.O. Box 2200
Streetsville
Mississauga, Ontario L5M 2H3

PHONE NUMBERS

Product Information : 1-800-387-2122
Transport Emergency : 1-613-348-3616 (24 HOURS)
Medical Emergency : 1-613-348-3616 (24 HOURS)

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
*Methane, Bromotrifluoro (Halon 1301)	75-63-8	100 %

* Disclosure as a toxic chemical is required under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

HAZARDS IDENTIFICATION

Potential Health Effects

Inhalation of high concentrations of vapor is harmful and may cause heart irregularities, unconsciousness or death. Intentional misuse can be fatal. Vapor reduces oxygen

available for breathing and is heavier than air. Liquid contact can cause frostbite.

Inhalation 15 minute ALC: 832,000 ppm in rats.

ACUTE TOXICITY IN ANIMALS: Inhalation: Effects range from "no observed adverse effects" at low to moderate concentrations to central nervous system effects at high concentrations (4%). Cardiac sensitization has been observed in dogs exposed to concentrations of 7.5% and higher.

SUBCHRONIC TOXICITY IN ANIMALS: Inhalation: Effects range from "no observed adverse effects" in some tests to pneumonitis, liver and kidney effects at lethal or near lethal concentrations.

Human health effects of overexposure by inhalation may initially include: nonspecific discomfort, such as nausea, headache, or weakness; or temporary central nervous system depression with effects such as dizziness, headache, confusion, incoordination and loss of consciousness. Pyrolysis products may produce irritating and corrosive gases.

Higher exposure (>13%) may lead to these effects: temporary alteration of the heart's electrical activity with irregular pulse, palpitations or inadequate circulation. Individuals with preexisting diseases of the central nervous or cardiovascular systems may have increased susceptibility to the toxicity of excessive exposures.

Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

FIRST AID MEASURES

First Aid

IF LARGE CONCENTRATIONS ARE INHALED: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician.

IN CASE OF SKIN CONTACT: Flush with water. Treat for frostbite if necessary.

IN CASE OF EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

IF SWALLOWED: Ingestion is not considered a potential route of exposure.

Notes to Physicians

Because of possible disturbances of cardiac rhythm, catecholamine drugs, such as epinephrine, should be considered only as a last resort in life-threatening emergencies.

FIRE FIGHTING MEASURES

Flammable Properties

Flash Point	: Will not burn.
Flammable limits in Air, % by Volume	
LEL	: Not applicable
UEL	: Not applicable
Autoignition	: Not determined
Autodecomposition	: >850 C (>1562 F)

Fire and Explosion Hazards:

Cylinders are equipped with temperature and pressure relief devices but may still rupture under fire conditions.

Decomposition may occur.

Extinguishing Media

As appropriate for combustibles in area. Will not burn.

Fire Fighting Instructions

Use water spray or fog to cool containers. Self-contained breathing apparatus (SCBA) is required if cylinders rupture or release under fire conditions.

ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Accidental Release Measures

Ventilate area-especially low places where heavy vapors might collect. Remove open flames. Use self-contained breathing apparatus (SCBA) for large spills.

HANDLING AND STORAGE

Handling (Personnel)

Avoid breathing very high concentrations of vapors. Avoid contact of eyes or skin with liquid.

Storage

Clean, dry area. Do not heat above 125 deg. F.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Normal ventilation for standard procedures is generally adequate. Local exhaust should be used when large amounts are released. Mechanical ventilation should be used in low places.

Personal Protective Equipment

Lined butyl gloves and chemical splash goggles should be used when handling. Under normal use conditions no respiratory protection is required. Self-contained breathing apparatus (SCBA) is required if a spill occurs.

Exposure Guidelines

Applicable Exposure Limits

Methane, Bromotrifluoro (Halon 1301)

PEL (OSHA)	:	1,000 ppm, 6,100 mg/m ³ , 8 Hr. TWA
TLV (ACGIH)	:	1,000 ppm, 6,090 mg/m ³ , 8 Hr. TWA
AEL * (DuPont)	:	None Established

* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Boiling Point : -58 C (-72 F)
Vapor Pressure : 235 psia @ 25 deg. C (77 deg. F)
% Volatiles : 100 WT%
Evaporation Rate : >1 (CCl4 = 1)
Solubility in Water : 0.03 WT% @ 25 C (77 F)
pH : Neutral
Odor : Slight ethereal
Form : Liquified Gas
Color : Clear, colorless
Specific Gravity : 1.54 g/cc @ 25 deg. C (77 deg. F)

VAPOR DENSITY (Air = 1)
5.14 @ 25 deg. C (77 deg. F)

STABILITY AND REACTIVITY

Polymerization

Polymerization will not occur.

Other Hazards

STABILITY: Material is stable. However, avoid extended contact with open flames or temperatures >1000 deg. F except when used as a fire extinguishant in properly designed fire extinguishing systems.

INCOMPATIBILITY: Alkali or alkaline earth metals - powdered Al, Zn, Be, etc.

DECOMPOSITION: Halon 1301 may be decomposed by high temperatures (open flames, glowing metal surfaces, etc.) forming free bromine and possibly carbonyl halides.

TOXICOLOGICAL INFORMATION

No Information Available

ECOLOGICAL INFORMATION

No Information Available

DISPOSAL CONSIDERATIONS

Waste Disposal

Comply with Federal, State and local regulations.
Reclaim by distillation or remove to permitted waste disposal facility.

TRANSPORTATION INFORMATION

Shipping Information

DOT/IMO
Proper Shipping Name : Bromotrifluoromethane
Hazard Class : 2.2
UN No. : 1009
DOT/IMO Label : Nonflammable Gas

Shipping Containers

Cylinders, ton tanks.

Shipping Information -- Canada

TDG
Proper Shipping Name : BROMOTRIFLUOROMETHANE
UN # : 1009
TDG Class : 2.2

REGULATORY INFORMATION

U.S. Federal Regulations

TSCA Inventory Status : Reported/Included.

Canadian Regulations

WHMIS Classification:

CLASS A Compressed Gas

CEPA Status : DSL: REPORTED/INCLUDED.

OTHER INFORMATION

NFPA, NPCA-HMIS

NPCA-HMIS Rating

Health : 1
Flammability : 0
Reactivity : 1

Personal Protection rating to be supplied by user depending on use conditions.

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Responsibility for MSDS

FLUOROPRODUCTS
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End of MSDS