

# MATERIAL SAFETY DATA SHEET

BROMOTRIFLUOROMETHANE

NSN:

Manufacturer's CAGE: OETK4

Part No. Indicator:

Part Number/Trade Name: HALON 1301

---

## General Information

---

Item Name: BROMOTRIFLUOROMETHANE  
Company's Name: RemTec International  
Company's Street: 1100 Haskins Road  
Company's City, State, Zip: Bowling Green, OH 43402, USA  
In Case of Emergency, Call : PERS at 800-633-8253/International 801-629-0667  
Company's Info Ph #: 419-867-8990 FAX 419-867-3279  
Date MSDS Prepared: 12/29/06 Safety Data Review Date: 11/30/2009  
MSDS Preparer's Name: RemTec  
MSDS Serial Number: MSDS1301-04  
Specification Number: ASTM D 5632-01  
Spec Type, Grade, Class:  
Hazard Characteristic Code:  
Unit Of Issue: Pound Type Of Container: CYLINDER  
Unit Of Issue Container Qty: 1-2000 pounds Net Unit Weight: 30-2000 LBS

---

## Ingredients/Identity Information

---

Proprietary: No  
Ingredient: BROMOTRIFLUOROMETHANE  
Ingredient Sequence Number: 01  
Percent: 100  
NIOSH (RTECS) Number:  
CAS Number: 75-63-8  
OSHA PEL: 1000 PPM  
ACGIH TLV: 1000 PPM  
Other Recommended Limit: None Recommended

---

## Physical/Chemical Characteristics

---

Formulation: CBrF<sub>3</sub> Molecular Weight: 148.9  
Appearance And Odor: CLEAR, COLORLESS, LIQUIFIED GAS WITH FAINT ETHER-LIKE ODOR  
Boiling Point: -71.9F,-57.7C  
Melting Point: Unknown  
Vapor Pressure (MM Hg/0 C): 6200 Critical Pressure (psia): 574.9  
Vapor Density (Air=1): 5.14 @ 25C Liquid Density at 77°F: 1.54  
Specific Gravity: 1.57 (WATER=1) Critical Temperature (C): 67.1  
Decomposition Temperature: 850C  
Evaporation Rate And Ref: Unknown  
Solubility In Water: .03 wt @ 25C  
Percent Volatiles By Volume: 100  
Corrosion Rate (IPY): Unknown

### Fire and Explosion Hazard Data

Flash Point:	NONFLAMMABLE
Extinguishing Media:	Halon 1301 is a fire extinguishing media
Special fire fighting proc:	Wear fire fighting protective equipment and full faced self-contained breathing apparatus. Cool fire exposed containers with water spray or fog to cool containers
Unusual fire and Explosive hazards:	Combustion or heat of fire may produce hazardous decomposition products and vapors. Cylinders are equipped with relief devices but may still rupture under fire conditions

### Reactivity Data

Stability:	Yes
Conditions To Avoid (Stability):	None
Materials To Avoid:	Strong alkalis, alkali earth metals, fires of metal hydrides, and material containing own oxygen
Hazardous Decomposition Products:	Thermal decomposition products include hydrogen fluoride, hydrogen bromide, bromine, carbonyl fluoride, and carbonyl bromide
Hazardous Poly Occur:	No
Conditions To Avoid (Poly):	None

### Health Hazard Data

LD50-LC50 Mixture:	1 HR LC50 (RAT) = >700,000 PPM
Route Of Entry	Inhalation: Yes      Skin: No      Ingestion: No
Health Hazard Acute And Chronic:	Approximate lethal concentration of Halon 1301 to the rat is 80% for 15 minutes. Halon 1301 has anesthetic and cardiac effects in humans at concentrations below 10% are considered safe for 0-5 minute exposures. Halon 1301 is classified as group 6 (least toxic) in the Underwriters Laboratories classification of comparative life hazards of fire extinguishing agents.
Carcinogenicity - NTP:	No
Carcinogenicity - IARC:	No
Carcinogenicity - OSHA:	No
Explanation Carcinogenicity:	Not listed as carcinogen by NTP, IARC, or OSHA.
Signs/Symptoms Of Over exp:	The anesthetic effect of Halon 1301 at levels below 10% is similar to a feeling of mild intoxication. Anesthetic effects to concentrations above 10% (15-20%), may lead to unconsciousness and possibly death. Human health effects of overexposure by inhalation may include nonspecific discomfort, such as nausea, headache, or weakness; or temporary central nervous system depression with effects such as dizziness, headache, confusion, in coordination, and loss of consciousness. Higher exposures by inhalation may cause temporary alteration of the heart's electrical activity with irregular pulse, palpitations, or inadequate circulation. Skin or eye contact with the liquid may cause frostbite.
Medical condition aggravated by exposure	Individuals with pre-existing diseases of the central nervous or cardiovascular system may have increased susceptibility to the toxicity of excessive exposure.
Emergency/First aid procedures:	Inhalation: remove victim to fresh air. Give symptomatic and supportive care. Get medical attention. Note: adrenalin is contraindicated in the treatment of overexposure to Halon 1301.
Skin Contact:	In case of skin contact, flush skin with plenty of water for 15 minutes.

Treat for frostbite if necessary by gently warming affected area.  
Eye contact: in case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.  
Notes to Physician: Because of possible disturbances of cardiac rhythm, catecholamine drugs, such as spinephrice, should only be used with special caution in situations of emergency life support.

---

#### Precautions for Safe Handling and Use

---

Steps If Material Released/Spill: Keep upwind. Ventilate area-especially low places remove open flames and heating elements. Disperse gas with floor level forced air.  
Neutralizing Agent: None  
Waste Disposal Method: Recycle or reclaim if possible. Reclaimed material may be incinerated but toxic and corrosive combustion products (hf & hcl) must be handled appropriately. Dispose of in accordance with local, state and federal regulations.  
Precautions-Handling/Storing: Store in tightly closed containers. Keep containers out of direct sunlight. Keep away from sources of heat and open ignition sources.  
Other Precautions: Avoid eye, and skin contact. Do not breath vapor mists or sprays. Avoid hot surfaces, open flames, cigarette smoking.

---

#### Control Measures

---

Respiratory Protection: If engineering controls fail, non-routine use or emergency occurs; use Niosh/MSHA approved respirator or supplied air respirator or SCBA, as required. Use in accordance with 29 CFR 1901.134.  
Ventilation: Use adequate mechanical ventilation.  
Protective Gloves: Rubber  
Eye Protection: Safety glasses/chemical splash goggles  
Other Protective Equipment: Clothing to prevent contact if liquid.  
Work Hygienic Practices: Wash hands after use and before eating, drinking, or smoking.

---

#### Transportation Data

---

TYPE I:  
DOT Proper Shipping Name: LIQUIFIED GAS, NONFLAMMABLE CHARGED WITH NITROGEN  
DOT Class: 2.2  
DOT ID Number: UN1058  
DOT Label: NONFLAMMABLE GAS  
  
TYPE II:  
DOT Proper Shipping Name: BROMOTRIFLUOROMETHANE  
DOT Class: 2.2  
DOT ID Number: UN1009  
DOT Label: NONFLAMMABLE GAS

---

#### Label Data

---

Label Required: Yes  
Chronic Hazard: No  
Signal Word: CAUTION!  
Acute Health Hazard-Slight: X

Contact Hazard-Slight: X  
Fire Hazard-None: X  
Reactivity Hazard-None: X  
Special Hazard Precautions: Contact with vapor may cause eye/skin irritation.  
Contact with liquid may cause frostbite.  
Inhalation of high concentrations may cause asphyxiation; may cause sensitivity to adrenalin, producing heart effects. Store in tightly closed containers. Keep containers out of direct sunlight. Keep away from sources of heat and open ignition sources.  
First Aid:  
Eyes: flush with plenty of water for at least 15 minutes. Get medical attention.  
Skin: Get medical attention if frostbitten. Warm skin slowly with water.  
Inhalation: move to fresh air. Give artificial respiration if breathing stopped. Give oxygen if breathing difficult. Get medical attention.  
Protect Eye: Y  
Protect Skin: Y  
Protect Respiratory: Y  
Label Name: RemTec Interantional  
Label Street: 1100 Haskins Road  
Label City, State, Zip, Country: Bowling Green, OH, 43402, USA

---

"Information contained herein is provided without warranty. RemTec International will not be liable for any damage which may result from the use or reliance on any information contained herein."

### **Sara 313 Supplier Notification**

This product contains the following EPCRA Section 313 chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40CFR372).

CAS Number: 75-45-6

Bromotrifluoromethane: 100% by weight

OSHA requires that you must provide copies of this MSDS to all of your customers who purchase this product.