

#31422

MATERIAL SAFETY DATA SHEET

PS

AMEREX CORPORATION  
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RESPONSIBLE PARTY: MSDS COORDINATOR

DATE PREPARED: 8-1-91  
SUPERSEDES: 6-22-88  
TELEPHONE: 205-655-3271  
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IDENTIFICATION

PRODUCT NAME: HALON 1211  
SYNONYMS: BROMOCHLORODIFLUOROMETHANE, BCF

HAZARDOUS INGREDIENTS

MATERIAL	CAS NO.	OSHA PEL TWA - PPM	ACGIH TLV TWA - PPM
Bromochlorodifluoromethane	353-59-3	None Established	None Established

OTHER INGREDIENTS

MATERIAL	CAS NO.
NONE	

PHYSICAL AND CHEMICAL CHARACTERISTICS

BOILING POINT (°F): 26	SPECIFIC GRAVITY(H <sub>2</sub> O = 1): 1.83 (liquid)	VAPOR PRESSURE (MM HG): 778 @ 60°F
PERCENT VOLATILE (%): 100	VAPOR DENSITY (AIR = 1): 5.7	EVAPORATION RATE: High
SOLUBILITY IN WATER: None	REACTIVITY IN WATER: NA	MELTING POINT(°F): NA
pH: No Data	APPEARANCE & ODOR: Colorless gas and liquid with very faint, sweet odor	
FLASH POINT (°F): None	AUTO IGNITION TEMPERATURE (°F): NA	FLAMMABLE LIMITS IN AIR BY VOL: NA
EXTINGUISHER MEDIA: None. This material is an extinguishing agent.		
SPECIAL FIRE FIGHTING PROCEDURES: Self-contained breathing apparatus with full facepiece and protective clothing when entering fire areas.		
UNUSUAL FIRE AND EXPLOSION HAZARDS: When Halon 1211 is discharged onto a fire, it decomposes above 900°F, releasing bromide ions, the extinguishing agent. Halogen compounds, such as halogen acids, are also formed. These by-products, although harmful if inhaled, are easily detected. Only a few PPM create an unpleasant, acrid odor which serves as a warning to the user. After the extinguisher is discharged, the area should be vacated until ventilation clears the atmosphere.		

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PHYSICAL HAZARDS

STABILITY: Stable	CONDITIONS TO AVOID: Decomposes under fire conditions
INCOMPATIBILITY (MATERIALS TO AVOID): Active metals such as powdered alumina and magnesium and fires of metal hydrides.	
HAZARDOUS DECOMPOSITION PRODUCTS: Decomposes above 900°F to give free halogens, halogen acid and small amounts of carbonyl halides.	
HAZARDOUS POLYMERIZATION: Will not occur	

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### HEALTH EFFECTS AND FIRST AID

**EFFECTS OF ACUTE OVEREXPOSURE FOR PRODUCT:**

**EYES:** The liquid form of this material can produce chilling sensations and discomfort.

**SKIN:** Evaporation of liquid from the skin can produce chilling sensations.

**BREATHING:** Exposures for more than a few minutes above 2% (8.5 lbs/1000 cu. ft. air) concentration can produce dizziness, impaired coordination, and cardiac effects.

**SWALLOWING:** Not likely to occur since this material is a gas at room temperature.

**FIRST AID:**

**IF IN EYES:** Flush with water for 15 minutes. If redness, itching, or a burning sensations develops, have eyes examined and treated by medical personnel.

**IF ON SKIN:** Wash with soap and water. If redness, itching, or a burning sensations develops, seek medical attention.

**IF BREATHED:** Remove victim to fresh air. If cough or other respiratory symptoms develop, consult medical personnel.

**IF SWALLOWED:** Give 1 or 2 glasses of warm water to drink and seek medical attention. Do not induce vomiting.

**PRIMARY ROUTES OF ENTRY:** Eyes, Skin Contact, Breathing

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:** In susceptible individuals, cardiac sensitization to circulating epinephrine compounds can result in potentially fatal heart arrhythmias.

**EFFECTS OF CHRONIC OVEREXPOSURE FOR PRODUCT:** Unknown.

**PRODUCT LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN:**

<b>NATIONAL TOXICOLOGY PROGRAM:</b>	<input type="checkbox"/> YES	<b>IARC MONOGRAPHS:</b>	<input type="checkbox"/> YES	<b>OSHA:</b>	<input type="checkbox"/> YES
	<input checked="" type="checkbox"/> NO		<input checked="" type="checkbox"/> NO		<input checked="" type="checkbox"/> NO

### CONTROL MEASURES AND PROTECTIVE EQUIPMENT

**RESPIRATORY PROTECTION (TYPE):** Not normally needed. If needed, use MSHA/NIOSH approved respirator for organic vapors. Wear NIOSH approved self-contained breathing apparatus at concentrations above 2%.

**VENTILATION:** GENERAL AREA: Recommended LOCAL EXHAUST: Recommended

**SKIN PROTECTION:** Impervious Gloves for Liquid exposure **EYE PROTECTION:** Safety Glasses. DO NOT WEAR CONTACT LENSES.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:** Eye wash station and safety shower in work area when working with liquified product.

**WORK/HYGIENE PRACTICES:** Use good personal hygiene and good housekeeping practices.

### SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** Store in cool area with good ventilation. Keep vapors away from high temperature surfaces to avoid toxic and corrosive decomposition products.

**OTHER PRECAUTIONS:** Enforce "No Smoking" rules in areas of use.

**STEPS TO BE TAKEN IN CASE PRODUCT IS RELEASED OR SPILLED:** Ventilate spill area and recover any liquid.

<b>HMS RATINGS:</b>		<b>HMS HAZARD INDEX:</b>	
HEALTH	2	MINIMAL	0
FLAMMABILITY	0	SLIGHT	1
REACTIVITY	0	MODERATE	2
		SERIOUS	3
		SEVERE	4

The information provided herein is offered in good faith and is to the best of our knowledge current. Although certain hazards are described herein we cannot state that these are the only hazards which exist. Final determination of suitability and safe usage of this material is the sole responsibility of the user who is obligated to review this data in the specific context of the intended use and determine appropriateness. No guarantee is implied or expressed regarding the accuracy of this information or the use of this material since the conditions of use are beyond our control.