MATERIAL SAFETY DATA SHEET
Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS Standards and European EU Standards

SECTION 1. PRODUCT IDENTIFICATION

PRODUCT NAME: HALON 1211
CHEMICAL NAME: BROMOCHLORODIFLUOROMETHANE
SYNONYMS: R 12B1; BCF; Chlorodifluoromonobromomethane; Fluigex 12B1; Fluorocarbon 1211; Freon 12B1; Halon 1211; Methane, bromochlorodifluoro-
PRODUCT USE: Fire Extinguishing Material
MANUFACTURER:
ADDRESS: H3R Aviation, Inc.
483 Magnolia Ave
Larkspur, CA, U.S.A. 94939
PHONE: 800/249-4289 (8:00 a.m. to 4:30 p.m. PST)
FAX: 415/945-0311
WEB SITE: www.h3rcleanagents.com
EMERGENCY PHONE:
CHEMTREC: 1-800-424-9300 (U.S./Canada/Puerto Rico) [24-hours]
CHEMTREC: +1-703-527-3887 (Outside North America) [24-hours]
DATE OF PREPARATION: September 21, 2006
DATE OF REVISION: August 18, 2009
NOTE: ALL United States Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalent Standards, Canadian WHMIS [Controlled Products Regulations], and European Union [Regulation (EC) 1907/2006 Annex II] required information is included in appropriate sections based on the U.S. ANSI Z400.1-2004 format. This product has been classified in accordance with the hazard criteria of the countries listed above.

SECTION 3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: Product Description: Halon 1211 is a colorless, liquefied gas, with a sweet odor, shipped under pressure. Health Hazards: The main acute health hazard associated with releases of this gas is asphyxiation by displacement of oxygen. This gas is heavier than air and will sink into low areas, creating an asphyxiation hazard. The main chronic health hazard associated with releases of this gas is possible adverse effects to the central nervous system and possible cardiac sensitization and arrhythmias. Chronic skin exposure may cause dermatitis. Flammability Hazards: This gas is not flammable. Reactivity Hazards: This gas is not reactive. Environmental Hazards: Release of this product to the environment is not expected to cause environmental harm. Emergency Response Considerations: Emergency responders must wear the proper personal protective equipment suitable for the situation to which they are responding. WARNING—If rescue personnel need to enter an area suspected of having a low level of Oxygen, they should be equipped with Self-Contained Breathing Apparatus (SCBA) and appropriate personal protective equipment.

EU LABELING CLASSIFICATION: Currently, there is no classification applicable per Directives 67/548/EEC and 1999/45/EC and subsequent Directives.

EU Risk Phrases: Not Applicable
EU Safety Phrases: Not Applicable

SECTION 3. COMPOSITION and INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Chemical Formula</th>
<th>CAS #</th>
<th>EINECS #</th>
<th>% Composition</th>
<th>EU Classification For Components</th>
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<tbody>
<tr>
<td>Bromochlorodifluoromethane</td>
<td>CBrClF₂</td>
<td>353-59-3</td>
<td>206-537-9</td>
<td>&gt; 99%</td>
<td>HAZARD CLASSIFICATION: Not applicable</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td>RISK PHRASES: Not Applicable</td>
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</table>

See Section 15 (Regulatory Information) for full EU Risk and Safety Phrase information.

SECTION 4. FIRST AID MEASURES

EYE CONTACT: If mechanical injury occurs, cover eye with bandage and seek appropriate medical attention.

INGESTION: Ingestion is an unlikely route of exposure for this gas.

INHALATION: Remove victim(s) to fresh air, as quickly as possible. Trained personnel should administer supplemental oxygen and/or cardio-pulmonary resuscitation, if necessary.

SKIN CONTACT: If skin contact causes adverse effects, begin decontamination with warm, running water. Minimum flushing is for 20 minutes. Remove exposed or contaminated clothing, taking care not to contaminate eyes. Victim must seek immediate medical attention if any adverse effect occurs. In case of frostbite, place the frostbitten part in warm water. DO NOT USE HOT WATER. If warm water is not available, or is impractical to use, wrap the affected parts gently in blankets. Alternatively, if the fingers or hands are frostbitten, place the affected area in the armpit. Encourage victim to gently exercise the affected part while being warmed. Seek immediate medical attention.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: None are anticipated.
NOTES TO PHYSICIANS: Administer oxygen, if necessary, and treat symptoms. This gas is an asphyxiant and can induce cardiac muscle sensitization to circulating epinephrine-like compounds. Do NOT give adrenalin or similar sympathomimetic drugs. Do NOT allow victim to exercise until 24 hours following specific exposures. Freeze burns of mucosal tissue can develop following specific exposures.

SECTION 5. FIRE FIGHTING MEASURES

FLASH POINT: Not Applicable
AUTOIGNITION: Not Applicable
FLAMMABLE RANGE: Not Applicable
EXTINGUISHING MEDIA: This is a non-flammable gas; use fire-extinguishing media appropriate for the surrounding materials.
SPECIAL FIRE-FIGHTING PROCEDURES: Non-flammable gas. Use extinguishing media appropriate for surrounding fire.
UNUSUAL FIRE AND EXPLOSION HAZARDS: This gas does not burn; however, containers, when involved in fire, may rupture or burst in the heat of the fire. Most cylinders have a pressure release device, which will vent contents if the cylinder is exposed to high temperatures. This gas is heavier than air, creating an asphyxiation hazard in low areas.

EXPLOSION SENSITIVITY TO MECHANICAL IMPACT: Not sensitive.
EXPLOSION SENSITIVITY TO STATIC DISCHARGE: Not sensitive.
HAZARDOUS COMBUSTION PRODUCTS: Combustion or decomposition products above 481.7°C (900°F) include hydrogen bromide, hydrogen chloride, hydrogen fluoride, free halogens, and small amounts of carbonyl halides. These by-products have a sharp irritating odor and are dangerous even in low concentrations and in sufficient concentrations can result in personal injury or death.

SECTION 6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: All release to the environment should be avoided as this material has an ozone depletion potential and a global warming potential.

In the event of a release of this product, operator should close the gas source if possible to do so safely. Evacuate area in the event of a significant release. Only trained personnel, wearing Self-Contained Breathing Apparatus (SCBA) should re-enter a contaminated area if oxygen levels are below 19.5% or unknown.

If leak is in user’s gas handling equipment or system, close cylinder valve, and safely vent high pressure before attempting repairs. If leak is from the cylinder, cylinder valve or the valve pressure relief device (PRD), contact your supplier.

Detection systems should be available to monitor for level of oxygen. The level of oxygen should above 19.5% before personnel can be allowed in the area without SCBA.

SECTION 7. HANDLING AND STORAGE

STORAGE: Cylinders should be stored upright (with valve protection caps or plugs in place) and firmly secured to prevent falling or being knocked over. Cylinders should be stored in dry, well-ventilated areas. Protect from salt or other corrosive materials. Storage should be away from heavily traveled areas, walkways, elevators, platform edges or other objects or situations that could damage the cylinder wall. Do not store in a manner that will block emergency exits, fire extinguishers or other safety equipment. Do not allow storage temperature to exceed 125°F (52°C). Use a first-in, first-out inventory system to prevent full containers from being stored for long periods of time. Store empty cylinders away from full cylinders. NOTE: Use only DOT or ASME code cylinders designed for compressed gas storage. Cylinders must not be recharged except by or with the consent of owner.

HANDLING: Releases of Halon 1211 can create an oxygen-deficient atmosphere. Be aware of any signs of dizziness or fatigue; exposures to fatal concentrations of Helium-3 could occur without any significant warning symptoms, due to oxygen-deficiency. Wearing contact lenses is not recommended when handling this gas.

Cylinder valves should be inspected regularly for physical damage or corrosion (apparent by discoloration or rust). Care should be taken to inspect the following valve locations for corrosion: neck (where valve inserts into cylinder); bonnet nut (where handle attaches to valve body). Close valve after each use and when empty.

Do not drag, roll, slide or drop cylinder. Use a suitable hand truck designed for cylinder movement. Never attempt to lift a cylinder by its cap. Secure cylinders at all times while in use. Use a pressure regulator to safely discharge product from cylinder. Use a check valve to prevent reverse flow into cylinder. Once cylinder has been connected to properly purged process, open cylinder valve slowly and carefully. If user experiences any difficulty operating cylinder valve, discontinue use and contact supplier. Never insert an object (e.g., wrench, screwdriver, etc.) into valve cap openings; doing so may damage valve, causing a leak to occur. Use an adjustable strap-wrench to remove over-tight or rusted caps.

Do not heat cylinders by any means to increase the discharge rate of product from the cylinder. Never apply flame or localized heat directly to any part of the cylinder. Cylinders should not be artificially cooled as certain types of steel undergo property changes when cryogenically cooled, thus making the cylinder unstable.

PRODUCT USE: This product is used as a fire extinguishing agent, refrigerant gas and as a cleaning agent.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Follow practices indicated in Section 6 (Accidental Release Measures). Relieve pressure before attempting repairs.
SECTION 7. HANDLING AND STORAGE (Continued)

SPECIAL PRECAUTIONS: Be aware of any signs of dizziness or fatigue; exposures to fatal concentrations of this gas could occur without any significant warning symptoms. All work operations should be monitored in such a way that emergency personnel can be immediately contacted in the event of a release. Always store and handle compressed gas cylinders in accordance with Compressed Gas Association, Inc. (telephone 703-412-0900) pamphlet CGA P-1, Safe Handling of Compressed Gases in Containers. Local regulations may require specific equipment for storage and use.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

VENTILATION AND ENGINEERING CONTROLS: Forced ventilation systems for the general work area should be provided. If appropriate, install automatic monitoring equipment to detect the level of oxygen.

EXPOSURE LIMITS:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>OSHA PELs ppm</th>
<th>ACGIH TLVs ppm</th>
<th>NIOSH RELs ppm</th>
<th>NIOSH IDLH ppm</th>
<th>DFG MAKs ppm</th>
<th>AIHA WEELs ppm</th>
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<tbody>
<tr>
<td>Halon 1211</td>
<td>353-59-3</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
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</table>

NE = Not Established

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132), equivalent standards of Canada (including CSA Standard Z94.4-02 and CSA Standard Z94.3-07), or standards of EU member states (including EN 529:2005 for respiratory PPE, CEN/TR 15419:2006 for hand protection, and CR 13464:1999 for face/eye protection). Please reference applicable regulations and standards for relevant details.

INTERNATIONAL EXPOSURE LIMITS: Currently, the following international exposure limits are in place for Halon 1211 (specific country limits may become available or change-consult individual countries for most current information).

BROMOCHLORODIFLUOROMETHANE:
Russia: STEL = 1000 mg/m$^3$, JAN 1993

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection). Please reference applicable regulations and standards for relevant details.

RESPIRATORY PROTECTION: Maintain oxygen levels above 19.5% in the workplace. Use supplied air respiratory protection if oxygen level is below 19.5%, or during emergency response to a release of this product. If respiratory protection is required, follow the requirements of the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-02, or European Standard EN 529:2005. Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres, use of a full-facepiece pressure/demand SCBA or a full facepiece, SAR with auxiliary self-contained air supply is required under OSHA’s Respiratory Protection Standard (1910.134-1998).

EYE PROTECTION: Use approved safety goggles or safety glasses, when cylinders are not closed and capped. Be aware that particles or objects propelled by high pressure gas can fly significant distances. Eyewear should be as described in U.S. OSHA 29 CFR 1910.133, European Standard CR 13464:1999, or Canadian CSA Standard Z94.3-07.

HAND PROTECTION: Work (such as leather) gloves are recommended when handling cylinders of this gas. Wear gloves appropriate to the specific operation for which this gas is used. Use triple gloves for spill response. If necessary, refer to U.S. OSHA 29 CFR 1910.138 appropriate Standards of Canada, or the European Standard CEN/TR 15419:2006.

OTHER PROTECTIVE EQUIPMENT: Use body protection appropriate for task. Safety shoes are recommended when handling cylinders of this gas. Information on general protective measures can be found in U.S. OSHA 29 CFR 1910.136. OSHA Technical Manual (Section VII: Personal Protective Equipment), appropriate Standards of Canada, or the European Standard CEN/TR 15419:2006. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee’s feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136 and the Canadian CSA Standard Z195-02, Protective Footwear.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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<th>Property</th>
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<tr>
<td>Molecular Weight</td>
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<tr>
<td>Boiling Point @ 1 atm</td>
<td>-4°C (26°F)</td>
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<tr>
<td>Freezing/Melting Point @ 1 atm</td>
<td>-159.5°C (319.1°F)</td>
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<tr>
<td>Specific Gravity [Relative Density] (air = 1)</td>
<td>1.83</td>
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<tr>
<td>Solubility in Water</td>
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<tr>
<td>Vapor Pressure</td>
<td>37.5 psi @ 70°F; 2,270 hPa @ 20°C</td>
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<tr>
<td>Vapor Density (air=1)</td>
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<tr>
<td>Odor Threshold</td>
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</table>

APPEARANCE, ODOR AND STATE: Colorless gas with a sweet odor.

WARNING PROPERTIES FOR THIS GAS: The odor may be a warning of a release. In terms of leak detection, fittings and joints can be painted with a soap solution to detect leaks, which will be indicated by a bubble formation.
SECTION 10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable.
CONDITIONS TO AVOID: Cylinders should not be exposed to temperatures in excess of 125°F (52°C).
MATERIALS WITH WHICH GAS IS INCOMPATIBLE: Metal halides. Contact with acids can evolve highly toxic hydrogen chloride.

REACTION:
A) HAZARDOUS DECOMPOSITION PRODUCTS: Combustion or decomposition products above 900°F include hydrogen bromide, hydrogen chloride, hydrogen fluoride, free halogens, and small amounts of carbonyl halides. These by-products have a sharp irritating odor.
B) HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

ROUTES OF ENTRY, SYMPTOMS OF ACUTE EXPOSURE:
WARNING: If rescue personnel need to enter an area in which a release of Halon 1211 has occurred, they should be equipped with Self-Contained Breathing Apparatus (SCBA) and appropriate personal protective equipment. High concentration of this gas will create an oxygen-deficient atmosphere, creating the risk of asphyxiation.

EYE CONTACT: Release of a high-pressure gas may result in airborne objects.

INGESTION: Ingestion of this gas is not a likely route of industrial exposure.

INHALATION: Inhalation of high concentrations of this gas may lead to heart arrhythmias. High concentrations of this gas can cause an oxygen-deficient environment. Individuals breathing such an atmosphere may experience symptoms which include headaches, ringing in ears, dizziness, drowsiness, unconsciousness, nausea, vomiting, and depression of all the senses. The skin of a victim may have a blue color. Under some circumstances of over-exposure, death may occur, due to the displacement of oxygen. The effects associated with various levels of oxygen are described on the following page.

CONCENTRATION of OXYGEN | EXPOSURE SYMPTOM
--- | ---
20.9% Oxygen: Normal oxygen concentration in air. 
15–19% Oxygen: Decreased ability to perform tasks. May impair coordination and may induce early symptoms in persons with heart, lung, or circulatory problems.
12–15% Oxygen: Breathing increases, especially in exertion. Pulse up. Impaired coordination, perception, and judgment.
10–12% Oxygen: Breathing further increases in rate and depth, poor coordination and judgment, lips slightly blue.
8-10% Oxygen: Mental failure, fainting, unconsciousness, ashen face, blueness of lips, nausea (upset stomach), and vomiting.
6–8% Oxygen: 8 minutes, may be fatal in 50–100% of cases; 6 minutes, may be fatal in 25 to 50% of cases; 4–5 minutes, recovery with treatment.
4–6% Oxygen: Coma in 40 seconds, followed by convulsion, breathing failure, death.

WARNING: Exposure to atmospheres containing 8–10% or less oxygen will bring about unconsciousness without warning and so quickly that individuals cannot help or protect themselves. Lack of sufficient oxygen may cause serious injury or death.

SKIN CONTACT: Transitory skin contact should not cause any adverse effects.

OTHER ACUTE HEALTH EFFECTS: Contact with rapidly expanding gases (which are released from under high pressure) may cause frostbite. Symptoms of frostbite include change in skin color to white or grayish-yellow. The pain caused by frostbite can quickly subside, masking the injury. In addition, the sudden release of a pressurized gas (such as may occur in the event of a valve failure), presents a severe hazard of mechanical injury.

ACUTE EXPOSURE TARGET ORGANS: Respiratory system.

ROUTES OF ENTRY, SYMPTOMS OF CHRONIC EXPOSURE:

INHALATION: In animal tests, rats were exposed by inhalation for 21 days, dosed 6 hours per day, 5 days per week, at 3,300 ppm and no adverse effects of toxicological significance (NOAEL) were observed. At 10,000 ppm, there were signs of central nervous system depression. However, there were no signs of toxicity or histopathological changes observed and no potentiation of cardiac sensitization potential. Other animal testing resulted in cardiac sensitization at various concentrations for varying exposure times. Chronic exposure to oxygen-deficient atmospheres (below 18% oxygen in air) may affect the heart and nervous system.
ROUTES OF ENTRY, SYMPTOMS OF CHRONIC EXPOSURE (continued):

SKIN CONTACT: Prolonged contact may cause dermatitis (dry, red, cracked skin) due to defatting of the skin.

ACUTE EXPOSURE TARGET ORGANS: Skin, cardiac system, central nervous system.

CARCINOGENIC POTENTIAL: Halon 1211 is not listed as a carcinogen or as a potential carcinogen on EPA, NIOSH, GERMAN MAK, OSHA, NTP, IARC, or CAL/OSHA Carcinogen lists.

TOXICITY DATA:

BIOLOGICAL EXPOSITION INDICES (BEIs):
Not applicable.

IRRITANCY OF PRODUCT:
Not diagnostic of specified effects

ADDITIONAL TOXICOLOGICAL DATA:

ACUTE: Inhalation-Rat: At 50,000 ppm, no effects were noted. At 75,000 ppm, slightly accelerated respiration was noted. At 100,000 ppm, mild excitement was seen. At 200,000 ppm, within 1 to 2 minutes marked excitation and some convulsions were noted. At 60 to 90 minutes, 2 of the 4 animals died. A concentration of 300,000 ppm immediately gave rise to convulsions and narcosis and all animals died within 50 min. Inhalation-Dog: At 25,000 to 75,000 ppm for 3.5 hours, there was reversible myocardial lesions and fatty degeneration of the liver.

CHRONIC: A case of occupational rhabdomyolysis in an individual susceptible to malignant hyperthermia was described. A 43 year old male was found to have a serum creatine-kinase activity of 650 international units per liter, normal range 10 to 200 international units/liter, suggesting that he was susceptible to malignant hyperthermia. His susceptibility was confirmed by in vitro testing of a muscle specimen with halothane and caffeine. The subject was subsequently employed in a factory that made fire extinguishers where one of his jobs consisted of discharging Bromochlorodifluoromethane from fire extinguishers before refilling them. Although discharging was done in open air, some gas was commonly inhaled. Eighteen months after beginning this work, he was examined for complaints of malaise and stiffness and weakness in the forearms and hands. The symptoms progressively worsened during the week and improved the weekends. Serum creatine-kinase activity was 1056 IU/l on one Saturday and 544 IU/l the following Monday. Because of the similarity in structure between Bromochlorodifluoromethane and halothane, the effects of the former on contractions of a muscle specimen were examined. Bromochlorodifluoromethane induced contractions identical to those of halothane. The patient was advised to change jobs. After he did so his symptoms immediately improved. It was concluded that the patient's rhabdomyolysis is due to recurring exposures to Bromochlorodifluoromethane. They recommended that persons susceptible to malignant hyperthermia avoid exposure to similar halogenated hydrocarbons. Inhalation-Human: At 4 to 5% for 1 minute using face mask, subjects at 30 seconds became slightly dizzy and light-headed. Over the next few seconds, these symptoms rapidly increased in severity until at 1 minute the subjects felt as though they were about to lose consciousness and exposure was stopped. Paresthesia of the fingers and other parts of the body was sometimes noted towards the end of the experiment. Heart rate rose by approximately 30% during the early stages of exposure and remained at that level through the experiment. Depression of the T wave was consistently observed on the ECG tracings. The subjects recovered rapidly on cessation of exposure and felt perfectly normal again within 5 minutes. The heart rate and the ECG reverted to normal within 1 minute. There were no delayed after effects. Inhalation-Dog: At 5,000 to 100,000 ppm resulted in cardiac sensitization above 20,000 ppm and in 10 to 0.5 minutes, depending on concentration.

IRRITANTCY OF PRODUCT: Not applicable.

SENSITIZATION OF PRODUCT: Halon 1211 is not a human skin or respiratory sensitizer, but has been shown to be a cardiac sensitizer in animal studies.

REPRODUCTIVE TOXICITY INFORMATION: Listed below is information concerning the effects of Halon 1211 on the human reproductive system.

Mutagenicity: Halon 1211 is not reported to cause mutagenic effects in humans.
Embryotoxicity: Halon 1211 is not reported to cause embryotoxic effects in humans.
Teratogenicity: Halon 1211 is not reported to cause teratogenic effects in humans.
Reproductive Toxicity: Halon 1211 is not reported to cause adverse reproductive effects in humans.

A mutagen is a chemical that causes permanent changes to genetic material (DNA) such that the changes will propagate through generational lines. An embryotoxin is a chemical that causes damage to a developing embryo (i.e., within the first eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A teratogen is a chemical that causes damage to a developing fetus, but the damage does not propagate across generational lines. A reproductive toxin is any substance that interferes in any way with the reproductive process.

BIOLOGICAL EXPOSURE INDICES (BEIs): Currently, Biological Exposure Indices (BEIs) have not been determined for Halon 1211.
SECTION 12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

ENVIRONMENTAL STABILITY: The gas will be dissipated rapidly in well-ventilated areas.

EFFECT OF MATERIAL ON PLANTS or ANIMALS: Immediate adverse effect on plants would be related to oxygen-deficient environments or frost from rapidly expanding gases, unless exposure occurs in a confined space.

EFFECT OF CHEMICAL ON AQUATIC LIFE: There is currently no evidence of adverse effects from exposure to Halon 1211 on aquatic life.

MOBILITY: Using a structure estimation method based on molecular connectivity indices, the Koc for Halon 1211 can be estimated to be about 49. According to a classification scheme, this estimated Koc value suggests that Halon 1211 is expected to have very high mobility in soil.

PERSISTENCE AND BIODEGRADABILITY: Photodegradation: > 50% after 14 years. If released to air, a vapor pressure of 2.07X10+3 mm Hg at 25°C indicates Halon 1211 will exist solely in the gas phase in the ambient atmosphere. Gas phase Bromochlorodifluoromethane will slowly be degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be greater than 44 years. Halon 1211 absorbs very little UV radiation above 290 nm and is not expected to photolyze at a significant rate in the ambient atmosphere. Volatilization from moist soil surfaces is expected to be an important fate process based upon an estimated Henry's Law constant of 9.4X10-2 atm-cu m/mole. Halon 1211 will volatilize rapidly from dry soil surfaces since it exists as a gas in the ambient environment. If released into water, Halon 1211 is not expected to adsorb to suspended solids and sediment based upon the estimated Koc. Volatilization from water surfaces is expected to be an important fate process based upon this compound's estimated Henry's Law constant. Estimated volatilization half-lives for a model river and model lake are 1.3 hrs and 5.1 days, respectively. Given its high degree of halogenation, it is not expected to be an important degradation pathway for Halon 1211.

POTENTIAL TO BIOACCUMULATE: An estimated BCF of 5.8 was calculated for Halon 1211, using an estimated log Kow of 1.9 and a regression-derived equation. According to a classification scheme, this BCF suggests the potential for bioconcentration in aquatic organisms is low.

OZONE-DEPLETION POTENTIAL: Halon 1211 is rated as 3 (compared to trichlorofluoromethane nominally 1). Halon 1211 is a Class I ozone depleting chemical (40 CFR Part 82). Halon 1211 may contribute to global warming.

SECTION 13. DISPOSAL CONSIDERATIONS

UNUSED PRODUCT / EMPTY CONTAINER: Do not dispose of residual product. Return used product in cylinders to: H3R Clean Agent Specialists, Inc.

DISPOSAL INFORMATION: Relative to the environment, this material has an ozone depletion potential and a global warming potential. Refer to the regulations of the U.S. EPA or the State-specific regulations for proper waste disposal, regulations of Canada and its Provinces, or regulations of EU member states.

SECTION 14. TRANSPORT INFORMATION

The following shipping information applies when this product is supplied in fire-extinguishing cylinders:

U.S. SHIPPING INFORMATION:

- **U.S. DOT PROPER SHIPPING NAME:** Fire extinguisher with compressed or liquefied gas
- **UN IDENTIFICATION NUMBER:** UN 1044
- **HAZARD CLASS NUMBER and DESCRIPTION:** 2.2 (Non-Flammable Gas)
- **U.S. DOT SHIPPING LABEL(S) REQUIRED:** Class 2.2 (Non-Flammable Gas)
- **PACKING GROUP:** Not Applicable
- **PLACARD (When required):** Class 2.2 (Non-Flammable Gas)
- **SPECIAL SHIPPING INFORMATION:** Cylinders should be transported in a secure position in a well-ventilated truck (never transport in passenger compartment of a vehicle). Ensure cylinder valve is properly closed, valve outlet cap has been reinstalled, and valve protection cap is secured before shipping cylinder.
- **CAUTION:** Compressed gas cylinders shall not be refilled except by qualified producers of compressed gases. Shipment of a compressed gas cylinder which has not been filled by the owner or with the owner's written consent is a violation of Federal law (49 CFR 173.301).
- **ERG (EMERGENCY RESPONSE GUIDEBOOK) #:** 126
- **SPECIAL PROVISIONS:** T50 Portable tanks - Applies to various liquefied compressed gases: Consult the regulations for specific requirements Sec. 172.102 Special Provision Portable Tank Code T50.

CANADIAN SHIPPING INFORMATION:

- **TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS:** This product is classified as Dangerous Goods, per regulations of Transport Canada. The use of the above U.S. DOT information from the U.S. 49 CFR regulations is allowed for shipments that originate in the U.S. For shipments via ground vehicle or rail that originate in Canada, the following information is applicable.
- **PROPER SHIPPING NAME:** Fire extinguisher with compressed or liquefied gas
- **UN IDENTIFICATION NUMBER:** UN 1044
- **HAZARD CLASS NUMBER and DESCRIPTION:** 2.2 (Non-Flammable Gas)
- **PACKING GROUP:** Not Applicable
- **HAZARD SHIPPING LABEL(S) REQUIRED:** Class 2.2 (Non-Flammable Gas)
## SECTION 14. TRANSPORT INFORMATION

### CANADIAN SHIPPING INFORMATION (continued):

**TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS (continued):**

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<td>PASSENGER CARRYING ROAD OR RAIL VEHICLE INDEX</td>
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### INTERNATIONAL AIR TRANSPORT ASSOCIATION SHIPPING INFORMATION (IATA):

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<tr>
<td>PROPER SHIPPING NAME/DESCRIPTION</td>
<td>Fire extinguisher with compressed or liquefied gas</td>
</tr>
<tr>
<td>HAZARD CLASS or DIVISION</td>
<td>2.2 (Non-Flammable Gas)</td>
</tr>
<tr>
<td>HAZARD LABEL(S) REQUIRED</td>
<td>Class 2.2 (Non-Flammable Gas)</td>
</tr>
<tr>
<td>PACKING GROUP</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>PASSENGER and CARGO AIRCRAFT PACKING INSTRUCTION</td>
<td>213</td>
</tr>
<tr>
<td>PASSENGER and CARGO AIRCRAFT MAXIMUM NET QUANTITY PER PKG</td>
<td>75 kg</td>
</tr>
<tr>
<td>PASSENGER and CARGO AIRCRAFT LIMITED QUANTITY PACKING INSTRUCTION</td>
<td>None</td>
</tr>
<tr>
<td>PASSENGER and CARGO AIRCRAFT LIMITED QUANTITY MAXIMUM NET QUANTITY PER PKG</td>
<td>None</td>
</tr>
<tr>
<td>CARGO AIRCRAFT ONLY PACKING INSTRUCTION</td>
<td>213</td>
</tr>
<tr>
<td>CARGO AIRCRAFT ONLY MAXIMUM NET QUANTITY PER PKG</td>
<td>150 kg</td>
</tr>
<tr>
<td>SPECIAL PROVISIONS</td>
<td>A19</td>
</tr>
<tr>
<td>ERG CODE</td>
<td>2L</td>
</tr>
</tbody>
</table>

### INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO):

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN No.</td>
<td>1044</td>
</tr>
<tr>
<td>PROPER SHIPPING NAME</td>
<td>Fire extinguisher with compressed or liquefied gas</td>
</tr>
<tr>
<td>HAZARD CLASS NUMBER</td>
<td>2.2</td>
</tr>
<tr>
<td>PACKING GROUP</td>
<td>None</td>
</tr>
<tr>
<td>SPECIAL PROVISIONS</td>
<td>225</td>
</tr>
<tr>
<td>LIMITED QUANTITIES</td>
<td>120 mL</td>
</tr>
<tr>
<td>PACKING INSTRUCTIONS</td>
<td>P003</td>
</tr>
<tr>
<td>EmS</td>
<td>F-C, S-V</td>
</tr>
<tr>
<td>STOWAGE CATEGORY</td>
<td>Category E. Clear of living quarters.</td>
</tr>
<tr>
<td>MARINE POLLUTANT</td>
<td>This material is not designated by the IMO to be a Marine Pollutant.</td>
</tr>
</tbody>
</table>

### EUROPEAN SHIPPING INFORMATION:

**EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR):** This material is classified by the Economic Commission for Europe to be dangerous goods. Additional information is as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN NO.</td>
<td>1044</td>
</tr>
<tr>
<td>NAME and DESCRIPTION</td>
<td>Fire extinguisher with compressed or liquefied gas</td>
</tr>
<tr>
<td>CLASS</td>
<td>2.2</td>
</tr>
<tr>
<td>CLASSIFICATION CODE</td>
<td>6A</td>
</tr>
<tr>
<td>PACKING GROUP</td>
<td>None</td>
</tr>
<tr>
<td>LABELS</td>
<td>2.2</td>
</tr>
<tr>
<td>SPECIAL PROVISIONS</td>
<td>225, 394</td>
</tr>
<tr>
<td>LIMITED QUANTITIES</td>
<td>LQ0</td>
</tr>
<tr>
<td>PACKING INSTRUCTIONS</td>
<td>P003</td>
</tr>
<tr>
<td>MIXED PACKING PROVISIONS</td>
<td>MP9</td>
</tr>
<tr>
<td>HAZARD IDENTIFICATION No.</td>
<td>None</td>
</tr>
</tbody>
</table>

The following shipping information applies when the product is supplied in types of cylinders other than fire extinguishers:

### U.S. SHIPPING INFORMATION:

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. DOT PROPER SHIPPING NAME</td>
<td>Chlorodifluorobromomethane or Refrigerant gas R12B1</td>
</tr>
<tr>
<td>UN IDENTIFICATION NUMBER</td>
<td>UN 1974</td>
</tr>
<tr>
<td>HAZARD CLASS NUMBER and DESCRIPTION</td>
<td>2.2 (Non-Flammable Gas)</td>
</tr>
<tr>
<td>U.S. DOT SHIPPING LABEL(S) REQUIRED</td>
<td>Class 2.2 (Non-Flammable Gas)</td>
</tr>
<tr>
<td>PACKING GROUP</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>PLACARD (When required)</td>
<td>Class 2.2 (Non-Flammable Gas)</td>
</tr>
<tr>
<td>SPECIAL SHIPPING INFORMATION</td>
<td>Cylinders should be transported in a secure position in a well-ventilated truck (never transport in passenger compartment of a vehicle). Ensure cylinder valve is properly closed, valve outlet cap has been reinstalled, and valve protection cap is secured before shipping cylinder.</td>
</tr>
<tr>
<td>CAUTION</td>
<td>Compressed gas cylinders shall not be refilled except by qualified producers of compressed gases. Shipment of a compressed gas cylinder which has not been filled by the owner or with the owner's written consent is a violation of Federal law (49 CFR 173.301).</td>
</tr>
</tbody>
</table>
U.S. SHIPPING INFORMATION (continued):
ERG (EMERGENCY RESPONSE GUIDEBOOK) #: 126
SPECIAL PROVISIONS: T50 Portable tanks - Applies to various liquefied compressed gases: Consult the regulations for specific requirements Sec. 172.102 Special Provision Portable Tank Code T50.

CANADIAN SHIPPING INFORMATION:
TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: This gas is classified as Dangerous Goods, per regulations of Transport Canada. The use of the above U.S. DOT information from the U.S. 49 CFR regulations is allowed for shipments that originate in the U.S. For shipments via ground vehicle or rail that originate in Canada, the following information is applicable.

PROPER SHIPPING NAME: Chlorodifluorobromomethane or Refrigerant gas R12B1
UN IDENTIFICATION NUMBER: UN 1974
HAZARD CLASS NUMBER and DESCRIPTION: 2.2 (Non-Flammable Gas)
PACKING GROUP: Not Applicable
HAZARD SHIPPING LABEL(S) REQUIRED: Class 2.2 (Non-Flammable Gas)
SPECIAL PROVISIONS: None
EXPLOSIVE LIMIT & LIMITED QUANTITY INDEX: 0.125
ERAP INDEX: None
PASSENGER CARRYING SHIP INDEX: None
PASSENGER CARRYING ROAD OR RAIL VEHICLE INDEX: 75

INTERNATIONAL AIR TRANSPORT ASSOCIATION SHIPPING INFORMATION (IATA):
UN IDENTIFICATION NUMBER: UN 1974
PROPER SHIPPING NAME/DESCRIPTION: Chlorodifluorobromomethane
HAZARD CLASS or DIVISION: 2.2 (Non-Flammable Gas)
HAZARD LABEL(S) REQUIRED: Class 2.2 (Non-Flammable Gas)
PACKING GROUP: Not Applicable
PASSENGER and CARGO AIRCRAFT PACKING INSTRUCTION: 200
PASSENGER and CARGO AIRCRAFT MAXIMUM NET QUANTITY PER PKG: 75 kg
PASSENGER and CARGO AIRCRAFT LIMITED QUANTITY PACKING INSTRUCTION: None
PASSENGER and CARGO AIRCRAFT LIMITED QUANTITY MAXIMUM NET QUANTITY PER PKG: None
CARGO AIRCRAFT ONLY PACKING INSTRUCTION: 200
CARGO AIRCRAFT ONLY MAXIMUM NET QUANTITY PER PKG: 150 kg
SPECIAL PROVISIONS: None
ERG CODE: 2L

INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO):
UN No.: 1974
PROPER SHIPPING NAME: Chlorodifluorobromomethane or Refrigerant gas R12B1
HAZARD CLASS NUMBER: 2.2
PACKING GROUP: None
SPECIAL PROVISIONS: None
LIMITED QUANTITIES: 120 mL
PACKING INSTRUCTIONS: P200
EmS: F-C, S-V
STOWAGE CATEGORY: Category A
MARINE POLLUTANT: This material is not designated by the IMO to be a Marine Pollutant.

EUROPEAN SHIPPING INFORMATION:
EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR): This material is classified by the Economic Commission for Europe to be dangerous goods. Additional information is as follows:
UN NO.: 1974
NAME and DESCRIPTION: Chlorodifluorobromomethane or Refrigerant gas R12B1
CLASS: 2.2
CLASSIFICATION CODE: 2A
PACKING GROUP: None
LABELS: 2.2
SPECIAL PROVISIONS: None
LIMITED QUANTITIES: LQ1
PACKING INSTRUCTIONS: P200
MIXED PACKING PROVISIONS: MP9
HAZARD IDENTIFICATION No.: 20
U.S. FEDERAL REGULATIONS:
EPA - ENVIRONMENTAL PROTECTION AGENCY:
   Reportable Quantity (RQ): Not Applicable
   SARA TITLE III: Superfund Amendment and Reauthorization Act
   SECTIONS 302/304: Emergency Planning and Notification (40 CFR Part 355)
   Extremely Hazardous Substances: Halon 1211 is not listed.
   Threshold Planning Quantity (TPQ): Not Applicable
   Reportable Quantity (RQ): Not Applicable
   SECTIONS 311/312: Hazardous Chemical Reporting (40 CFR Part 370)
   IMMEDIATE HEALTH: No
   PRESSURE: Yes
   DELAYED HEALTH: No
   REACTIVITY: No
   FIRE: No
   SECTION 313: Toxic Chemical Release Reporting (40 CFR 372)
   Releases of Halon 1211 require reporting under Section 313.
CLean AIR ACT:
   SECTION 112 (r): Risk Management Programs for Chemical Accidental Release (40 CFR Part 68)
   Threshold Planning Quantity (TPQ): Not Applicable
TSCA: Toxic Substances Control Act
   Halon 1211 is listed in the TSCA Inventory
OSHA - OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION:
   Threshold Planning Quantity (TPQ): Not Applicable
OTHER U.S. FEDERAL REGULATIONS:
   Requirements under (40 CFR Part 82) may be applicable as Halon 1211 is designated as an ozone-depleting compound.
U.S. STATE REGULATORY INFORMATION:
CALIFORNIA PROPOSITION 65: Halon 1211 is NOT listed on the California Proposition 65 lists.
CANADIAN FEDERAL REGULATIONS:
CANADIAN DSL INVENTORY STATUS: Halon 1211 is listed on the DSL Inventory.
OTHER CANADIAN REGULATIONS: Halon 1211 is categorized as a Controlled Product, Hazard Class A, as per the Controlled Product Regulations. Halon 1211 is not on the CEPA Priorities Substances Lists.
CANADIAN WHMIS CLASSIFICATION and SYMBOLS: Class A: Compressed Gas

EUROPEAN UNION REGULATIONS:
EU LABLELING AND CLASSIFICATION: Currently, this substance is not classified, as per European Union Council Directives 67/548/EEC and 1999/45/EC and subsequent Directives.
   EU CLASSIFICATION: Not Applicable
   EU RISK PHRASES: Not Applicable
EUROPEAN UNION ANNEX II HAZARD SYMBOL: Not Applicable

SECTION 15. REGULATORY INFORMATION

DEFINITIONS OF TERMS

EXPOSURE LIMITS IN AIR (continued):
   DFG MAK Germ Cell Mutagen Categories (continued): 3B: Substances which are suspected of being germ cell mutagens because of their genotoxic effects in mammalian somatic cell in vivo; in exceptional cases, substances for which there are no in vivo data, but which are clearly mutagenic in vitro and structurally related to known in vivo mutagens. 4: Not applicable (Category 4 carcinogenic substances are those with non-genotoxic mechanisms of action. By definition, germ cell mutagens are genotoxic. Therefore, a Category 4 for germ cell mutagens cannot apply. At some time in the future, it is conceivable that a Category 4 could be established for genotoxic substances with primary targets other than DNA [e.g. purely aneugenic substances] if research results make this seem sensible.) 5: Germ cell mutagens, the potency of which is considered to be so low that, provided the MAK value is observed, their contribution to genetic risk for humans is expected not to be significant.

A large number of abbreviations and acronyms appear on a MSDS. Some of these which are commonly used include the following:

CAS #: This is the Chemical Abstract Service Number that uniquely identifies each constituent.

EXPOSURE LIMITS IN AIR:
CEILING LEVEL: The concentration that shall not be exceeded during any part of the working exposure.

DFG MAK Germ Cell Mutagen Categories:
   1: Germ cell mutagens which have been shown to increase the mutant frequency in the progeny of exposed humans. 2: Germ cell mutagens which have been shown to increase the mutant frequency in the progeny of exposed mammals. 3A: Substances which have been shown to induce genetic damage in germ cells of human or animals, or which produce mutagenic effects in somatic cells of mammals in vivo and have been shown to reach the germ cells in an active form.

REVISION INFORMATION:
August 2009: Review and up-date of MSDS to current Standards.
DEFINITIONS OF TERMS (Continued)

HALON 1211

CURRENT PAGE: 11

Thank you.
DEFINITIONS OF TERMS (Continued)

NATIONAL FIRE PROTECTION ASSOCIATION HAZARD RATINGS (continued):

HEALTH HAZARD (continued): 1 (materials that, under emergency conditions, can cause significant irritation): Gases and vapors whose LC50 for acute inhalation toxicity is greater than 10 mg/L but less than or equal to 2 mg/L.  Dusts and mists whose LC50 for acute dermal toxicity is greater than 5,000 mg/kg but less than or equal to 1,000 mg/kg.  Liquids whose LD50 for acute oral toxicity is greater than 50 mg/kg but less than or equal to 10 mg/kg.  Any liquid whose saturated vapor concentration at 20°C (68°F) is equal to or greater than one-fifth of its LC50 for acute inhalation toxicity, if its LC50 is less than or equal to 2,000 mg/L and that does not meet the criteria for either degree of hazard 3 or degree of hazard 4.

2 (materials that are respiratory irritants.  Materials that cause severe, but reversible irritation to the respiratory tract, eyes and skin.  2 (materials that, under emergency conditions, can cause temporary incapacitation or residual injury): Gases and vapors whose LC50 for acute inhalation toxicity is greater than 3,000 ppm but less than or equal to 500 ppm. Dusts and mists whose LC50 for acute dermal toxicity is greater than 200 mg/kg but less than or equal to 10 mg/kg.  Materials whose LD50 for acute oral toxicity is greater than 50 mg/kg but less than or equal to 5 mg/kg.

3 (materials that readily undergo violent chemical change at elevated temperature or under high ambient temperatures or under moderate heating could release vapor in sufficient quantities to produce hazardous atmospheres with air; Liquids having a flash point of the solvent.

4 (materials that readily undergo violent chemical change at elevated temperature or under high ambient temperatures or under moderate heating could release vapor in sufficient quantities to produce hazardous atmospheres with air; Liquids having a flash point of the solvent when tested by differential scanning calorimetry.  1 Materials that cause severe, but reversible irritation to the respiratory tract, eyes and skin.  Gases and vapors whose LC50 for acute inhalation toxicity is greater than 1,000 ppm but less than or equal to 3,000 ppm. Dusts and mists whose LC50 for acute inhalation toxicity is greater than 5 mg/kg but less than or equal to 50 mg/kg. Any liquid whose saturated vapor concentration at 20°C (68°F) is equal to or greater than one-fifth of its LC50 for acute inhalation toxicity, if its LC50 is less than or equal to 3000 ppm and that does not meet the criteria for degree of hazard 4. Compressed liquefied gases with boiling points between -55°C (-67°F) and -80°C (-176°F).  Liquids having a flash point of the solvent when tested by differential scanning calorimetry.

OTHER INFORMATION:

NATIONAL FIRE PROTECTION ASSOCIATION HAZARD RATINGS (continued):

FLAMMABILITY HAZARD: 1 (materials that will burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand that will not burn in air when exposed to a temperature of 150°F (655°C) for a period of 5 minutes in accordance with Annex D. 1 Materials that must be preheated before ignition can occur. Materials in this degree require considerable preheating, under all ambient temperature conditions, before ignition and combustion can occur.  1 Materials that will burn in air when exposed to a temperature of 150°F (655°C) for a period of 5 minutes in accordance with Annex D.  1 Liquids, solids and semisolids having a flash point at or above 93.4°C (200°F) (i.e. Class IIIA liquids).  Liquids having a flash point of the solvent when tested by differential scanning calorimetry.  1 Materials that will burn in air when exposed to a temperature of 150°F (655°C) for a period of 5 minutes in accordance with Annex D. 1 Liquids, solids and semisolids having a flash point at or above 93.4°C (200°F) (i.e. Class IIIA liquids).  1 Materials that will burn in air when exposed to a temperature of 150°F (655°C) for a period of 5 minutes in accordance with Annex D. 1 Liquids, solids and semisolids having a flash point at or above 93.4°C (200°F) (i.e. Class IIIA liquids).  1 Materials that will burn in air when exposed to a temperature of 150°F (655°C) for a period of 5 minutes in accordance with Annex D. 1 Liquids, solids and semisolids having a flash point at or above 93.4°C (200°F) (i.e. Class IIIA liquids).  1 Materials that will burn in air when exposed to a temperature of 150°F (655°C) for a period of 5 minutes in accordance with Annex D. 1 Liquids, solids and semisolids having a flash point at or above 93.4°C (200°F) (i.e. Class IIIA liquids).  1 Liquids and solids having a flash point at or above 70°C (158°F) that give off sufficient vapors to form an ignitable mixture with air.  Solids containing greater than 0.5 percent by weight of a flammable or combustible solvent are rated by the closed cup flash point method, and that must be heated under confinement before initiation: Materials that have an estimated instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) at or above 0.01 W/mL, and below 10 W/mL.

INSTABILITY LIMITS IN AIR:

TOXICOLOGICAL INFORMATION:

EC is the effect concentration in water.  BCF = Bioconcentration Factor, which is used to determine if a substance will concentrate in lifeforms which consume contaminated plant or animal material.  TEL = median threshold limit; Coefficient of O/W Water Distribution is represented by log Kow or log Koc, and is used to assess a substance’s behavior in the environment.

REGULATORY INFORMATION:

ACGIH: American Conference of Governmental Industrial Hygienists, a professional association which establishes exposure limits.  This section explains the impact of various laws and regulations on the material.  EPA is the United States Environmental Protection Agency.  NIOSH is the National Institute for Occupational Safety and Health, which is the research arm of the U.S. Occupational Safety and Health Administration (OSHA).  WHMIS is the Canadian Workplace Hazardous Materials Information System (WHMIS), which sets standards for the quantities of hazardous materials and the type of labeling.  DOT is the Department of Transportation, and the Transport Canada, respectively.  Superfund Amendments and Reauthorization Act (SARA): the Canadian Domestic/Nondomestic Substances List (DSL/NDSL); the U.S. Toxic Substance Control Act (TSCA); Marine Pollutant Impact Test (MPIT); the DOT, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund); and various state regulations. This section also includes information on the precautionary warnings which appear on the material’s package label.  OSHA - U.S. Occupational Safety and Health Administration.