Product ID:BCF, HALON 1211 MSDS Date:02/10/1989 FSC:4210 NIIN:01-297-5641 MSDS Number: BMQVV === Responsible Party === Company Name: ICI AMERICAS INC, FIRE FIGHTING CHEMICALS DIV Address:NEW MURPHY RD AND CONCORD PIKE City:WILMINGTON State:DE ZIP:19897 Country:US Info Phone Num:302-575-3000 Emergency Phone Num:302-575-3000 CAGE:1AT55 === Contr actor Identification === Company Name: BADGER PRECISION SPRINGS INC CAGE:7Y859 Company Name: ICI AMERICAS INC. (FILM DIVISION) Address:NEW MURPHY ROAD AND CONCORD PIKE Box:City:WILMINGTON State:DE ZIP:19897 Country:US Phone:302-575-3000 CAGE:1AT55

Ingred Name:BROMOCHLORODIFLUOROMETHANE CAS:353-59-3 RTECS #:PA5270000 Fraction by Wt: 100% Other REC Limits:NONE SPECIFIED

========== Hazards Identification =========

LD50 LC50 Mixture:LC50 INH RAT 211 MG/L Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO Health Hazards Acute and Chronic:INHALATION: VAPOR IS HEAVIER THAN AIR AND CAN CAUSE SUFFOCATION BY REDUCING OXYGEN AVAILABLE FOR

BREATHING. BREATHING HIGH CONCENTRATIONS OF VAPOR MAY CAUSE LIGHT-HEADEDNESS, GIDDINESS, SHORTNESS OF B REATH, AND MAY LEAD TO NARCOSIS, CARDIAC IRREGULARITIES, UNCONSCIOUSNESS OF DEATH. SK

IN/EYE: LIQUID CAN DEFAT TISSUE.

Explanation of Carcinogenicity: THIS COMPOUND IS NOT LISTED AS A CARCINOGEN BY IARC, NTP OR OSHA.

Effects of Overexposure:BREATHING HIGH CONCENTRATIONS OF VAPOR MAY CAUSE LIGHT-HEADEDNESS, GIDDINESS, SHORTNESS OF BREATH, AND MAY LEAD TO NARCOSIS, CARDIAC IRREGULARITIES, UNCONSCIOUSNESS OR DEATH. LIQUID IS NOT CORROSIVE O R AN IRRITANT, BUT CAN CAUSE DEFATTING OF TISSUE.

Medical Cond Aggravated by Exposure: IN SUSCEPTIBLE INDIVIDUALS, CARDIAC

SENSITIZATION TO CIRCULATING EPINEPHRINE COMPOUNDS CAN RESULT IN POTENTIALLY FATAL HEART ARRHYTHMIAS.

First Aid:INHALATION: REMOVE TO FRESH AIR, CALL A PHYSICIAN. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION.IF BREATHING IS DIFFICULT, GIVE OXYGEN. DO NOT GIVE EPINEPHRINE OR SIMILAR DRUGS. EYE: FLUSH WITH WATER . SKIN: FLUSH WITH WATER. IF IRRITATIONPERSISTS, GET MEDICAL ATTENTION. ORAL: GET MEDICAL ATTEN TION IMMEDIATELY. DO NOT

INDUCE VOMITING AS THE HAZARD OF ASPIRATING INTO THE LUNGS IS TOO GREAT.

Extinguishing Media:USE WATER FOG, CARBON DIOXIDE, FOAM, OR DRY CHEMICAL AS APPROPRIATE FOR SURROUNDINGS. MATERIAL IS AN EXTINGUISHER.

Fire Fighting Procedures:WEAR FIRE FIGHTING PROTECTIVE EQUIPMENT AND A FULL FACED SELF CONTAINED BREATHING APPARATUS. EVACUATE AREA. COOL FIRE EXPOSED CONTAINERS WITH WATER

SPRAY.

Unusual Fire/Explosion Hazard:COMBUSTION OR HEAT OF FIRE MAY PRODUCE HAZARDOUS DECOMPOSITION PRODUCTS AND VAPORS INCLUDING HYDROGEN HALIDES AND HALOGENS.

Spill Release Procedures: VENTILATE ENCLOSED AREAS IN CASE OF INADVERTENT OR DELIBERATE DISCHARGE OF HALON 1211. Neutralizing Agent: NONE

Handling and Storage Precautions: STORE IN A CLEAN,

COOL, DRY AND WELL-

VENTILATED AREA OF LOW FIRE RISK. PROTECT CONTAINERS FROM PHYSICAL DAMAGE AND KEEP CLOSED.

Other Precautions: AVOID BREATHING VAPOR, LIQUID CONTACT WITH EYES, SKIN OR CLOTHING. TANK-CLEANING PERSONNEL SHOULD USE ONLY FORMAL TANK ENTRY PROCEDURE BASED ON RECOGNIZED SAFETY PRINCIPLES. EMPTY CONTAINERS MAY CONTA IN PRODUCT RESIDUES/VAPORS.

======= Exposure Controls/Personal Protection ==========

Respiratory Protection:NONE REQUIRED FOR ADEQUATELY VENTED WORK

SITUATIONS. FOR ACCIDENTAL OR NON-VENTILATED SITUATIONS, USE A SELF- CONTAINED BREATHING APPARATUS OR SUPPLIED-AIR RESPIRATOR, APPROVED BY NIOSH.

Ventilation: PROVIDE LOCAL EXHAUST AT FILLING ZONES AND OTHER OPERATING SPACES WHERE LEAKAGE IS PROBABLE. MECHANICAL FOR OTHER.

Protective Gloves:NONE SPECIFIED BY MANUFACTURER.

Eye Protection: NONE SPECIFIED BY MANUFACTURER.

Other Protective Equipment: USE IMPERVIOUS CLOTHING IF THERE IS REPEATED OR PROLONGED CONTACT WITH

LIQUID.

Work Hygienic Practices:REMOVE AND WASH CLOTHING PROMPTLY UPON CONTAMINATION. USE ORDINARY GOOD HYGIENE AND GOOD HOUSEKEEPING. Supplemental Safety and Health AVOID DIRECT CONTACT.

HCC:N1 Boiling Pt:B.P. Text:26 Vapor Pres:778 @60F Vapor Density:5.7 Spec Gravity:1.83 Solubility in Water:INSOLUBLE Appearance and Odor:COLORLESS GAS AND LIQUID WITH VERY FAINT SWEET ODOR

========= Stability and Reactivity Da

Stability Indicator/Materials to Avoid:YES

STRONG OXIDIZING AGENTS, MATERIAL CONTAINING OXYGEN, ACTIVE METALS, FIRES OF METAL HYDRIDES.

Stability Condition to Avoid:HIGH HEAT, OPEN FLAMES AND OTHER SOURCES OF IGNITION

Hazardous Decomposition Products:DECOMPOSED BY HIGH TEMPERATURES (OPEN FLAMES, GLOWING METAL SURFACES, ETC.) FORMING HYDROCHLORIC AND HYDROFLUORIC ACIDS.

Waste Disposal Meth ods:COMPLY WITH FEDERAL, STATE AND LOCAL REGULATIONS. REMOVE TO A PERMITTED WASTE DISPOSAL FACILITY. MATERIAL USUALLY DISPERSES IN THE ATMOSPHERE.

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