

GREAT LAKES CHEMICAL CORP -- 045, HALON 1301 -- 6830-01-284-5852  
===== Product Identification =====

Product ID:045, HALON 1301  
MSDS Date:09/01/1990  
FSC:6830  
NIIN:01-284-5852  
Status Code:A  
MSDS Number: CLJXL  
=== Responsible Party ===  
Company Name:GREAT LAKES CHEMICAL CORP  
Address:1801 HWY 52 NW  
Box:2200  
City:WEST LAFAYETTE  
State:IN  
ZIP:47996-2200  
Country:US  
Info Phone Num:765-497-6100/800-949-5167  
Emergency Phone Num:(501) 862-5141  
Preparer's Name:RESEARCH SERVICES DEPT  
CAGE:2E394  
=== Contractor Identification ===  
Company Name:GREAT LAKES CHEMICAL CORP  
Address:1801 HWY 52 NW  
Box:2200  
City:WEST LAFAYETTE  
State:IN  
ZIP:47996-2200  
Country:US  
Phone:765-497-6100/800-949-5167  
CAGE:2E394  
Company Name:KEYSTONE FIRE PROTECTION CO.  
Address:108 PARK DRIVE, SUITE 3  
Box:City:MONTGOMERYVILLE  
State:PA  
ZIP:18936  
Country:US  
Phone:215-641-0100/ FAX 215-641-9638  
Contract Num:SP0450-00-D-0521  
CAGE:1U693

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==== Composition/Information on Ingredients =====

Ingred Name:BROMOTRIFLUOROMETHANE

CAS:75-63-8

RTECS #:PA5425000

OSHA PEL:6100 MG/M3;1000 PPM

ACGIH TLV:6090 MG/M3;1000 PPM

Ozone Depleting Chemical:1

==== Hazards Identification =====

LD50 LC50 Mixture:LC50 RAT >800,000 PPM FOR 4 HRS.

Routes of Entry: Inhalation:YES Skin:NO Ingestion:NO

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:HALON 1301 HAS ANESTH  
ETIC AND CARDIAC

EFFECTS IN HUMANS AT CONCENTRATIONS ABOVE 10% BY VOLUME,  
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. SMOKING IN AREAS WHERE THIS  
CHEMICAL IS RELEASED CAN CAUSE FORMATION OF TOXIC & IRRITATING  
HALOGENS AND HLOGEN ACIDS WHICH COULD BE INHALED WITH THE SMOKE.

Explanation o

f Carcinogenicity:PRODUCT IS NON-MUTAGENIC IN THE AMES  
TEST.

Effects of Overexposure:THE ANESTHETIC EFFECT OF HALON 1301 AT LEVELS  
BELOW 10% IS SIMILAR TO A FEELING OF MILD INTOXICATION. ANESTHETIC  
EFFECTS END RAPIDLY AFTER EXPOSURE IS TERMINATED. PROLONGED  
EXPOSURE TO CONCENTRATIONS ABOVE 10% (15-20%) MAY LEAD TO  
UNCONSCIOUSNESS AND POSSIBLY DEATH. INHALATION OF PRODUCT & ITS  
DECOMPOSITION PRODUCTS CAN CAUSE CLOUDING OF CONTACT LENSES.

Medical Cond Aggravated by Exposure

:CARDIAC CONDITIONS MAY BE  
AGGRAVATED BY OVEREXPOSURE.

==== First Aid Measures =====

First Aid:INHALATION: REMOVE PERSON TO FRESH AIR; IF NOT BREATHING,  
GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE  
OXYGEN. GET MEDICAL ATTENTION. SKIN: FLUSH WITH WATER. GET MEDICAL  
ATTENTION IF F ROSTBITE OCCURS. EYES: FLUSH WITH WATER. GET MEDICAL  
ATTENTION. NOTE: EPINEPHRINE IS CONTRAINDICATED IN THE TREATMENT OF  
OVER-EXPOSURE TO T

HIS PRODUCT.

===== Fire Fighting Measures =====

Flash Point:NON-FLAMMABLE

Extinguishing Media:HALON 1301 IS A FIRE EXTINGUISHING AGENT. USE WATER SPRAY TO COOL CYLINDERS INVOLVED IN FIRES. USE MEDIA SUITABLE FOR FLAMMABLE MATERIAL IN THE AREA.

Fire Fighting Procedures:WEAR SELF-CONTAINED BREATHING APPARATUS.

Unusual Fire/Explosion Hazard:PREDOMINANT DECOMPOSITION PRODUCTS ARE HYDROGEN FLUORIDE AND HYDROGEN BROMIDE IN FIRE SITUATIONS. THE PRODUC

TS ARE IRRITATING AND POTENTIALLY TOXIC IF FIRE

EXTINGUISHMENT IS DELAYED. ABOVE 1000F, HALO N 1301 MAY RELEASE HYDROGEN FLUORIDE, HYDROGEN BROMIDE, CARBONYL FLUORIDE AND CARBONYL BROMIDE.

===== Accidental Release Measures =====

Spill Release Procedures:EVACUATE AREA. WEAR SELF-CONTAINED BREATHING APPARATUS, VENTILATE ENCLOSED AREAS IN CASE OF DISCHARGE.

===== Handling and Storage =====

Handling and Storage Precau

tions:PROTECT CYLINDERS FROM PHYSICAL

DAMAGE. STORAGE TEMPERATURE SHOULD NOT EXCEED 125F. CYLINDERS SHOULD BE SECURED FOR STORAGE WITH VALVE PROTECTION CAP IN PLACE.

Other Precautions:DO NOT SMOKE OR WEAR CONTACT LENSES WHERE THIS PRODUCT IS BEING USED.

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

Respiratory Protection:WEAR NIOSH APPROVED, SELF-CONTAINED BREATHING APPARATUS AT CONCENTRATIONS GREATER THAN 10,000 PPM AS RECOMMENDED BY NIOSH. CONSULT AN

SI STANDARD AND OSHA REGULATIONS CONCERNING THE USE OF RESPIRATORY EQUIPMENT. AVOID PROLONGED EXPOSURE TO EXCESSIVE CONCENTRATIONS.

Ventilation:LOCAL EXHAUST-MAERIAL TRANSFER AND HANDLING SHOULD BE CONDUCTED WITH AN EXHAUST SYSTEM. MECHANICAL-ALL INDOOR AREAS SHOULD BE WELL VENTILATED. SPECIAL-NONE

Protective Gloves:LINED NEOPRENE OR LEATHER IF FROSTBITE IS A POSSIBILITY

Eye Protection:CHEMICAL SAFETY GOGGLES IF FROSTBITE IS A POSSIBILITY. DO NOT WEAR CONTACT LENS

Other P

Protective Equipment:NONE

Work Hygienic Practices:DETERMINE THAT PIPING IS EMPTY BEFORE DOING MAINTENANCE WORK. PERIODICALLY CHECK CYLINDER TO ENSURE VALVES ARE NOT LEAKING.

Supplemental Safety and Health

===== Physical/Chemical Properties =====

HCC:G3

Boiling Pt:=-57.6C, -72.F

Melt/Freeze Pt:=-167.6C, -270.F

Vapor Pres:6200 AT 0C

Vapor Density:5.1

Spec Gravity:1.57 AT 20C

Evaporation Rate & Reference:NOT AVAILABLE

Solubility in Water:0.03% BY WEIGHT

Appearance

Color and Odor:ODORLESS, COLORLESS GAS

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

ACTIVE METALS, FIRES OF METAL HYDRIDES, AND MATERIAL CONTAINING OWN OXYGEN. PRODUCT WILL NOT EXTINGUISH FIRES OF THESE MATERIALS. PRODUCT MAY DEGRADE CERTAIN POLYMERIC MATERIALS.

Stability Condition to Avoid:NONE

Hazardous Decomposition Products:IN THE PRESENCE OF FLAMES OR HOT SURFACES: HYDROGEN FLUORIDE, HYDROGEN BROMIDE, BROMINE, CARBONYL

FLUORIDE, AND CARBONYL BROMIDE. SMOKING CAN CAUSE FORMATION OF THESE CHEMICALS AND MUST BE AVOIDED IN

Conditions to Avoid Polymerization:WILL NOT OCCUR.

===== Toxicological Information =====

Toxicological Information:APPROXIMATE LETHAL CONCENTRATION OF HALON 1301 TO THE RAT IS GREATER THAN 800,000 PPM FOR 15 MINUTES. THE ACUTE INHALATION LC50 WITH RATS IS GREATER THAN 800,000 PPM FOR 4 HOURS. THE COMPOUND IS REPORTED TO BE NON-MUTAGENIC IN THE AMES

TEST.

HALON 1301 HAS ANESTHETIC AND CARDIAC EFFECTS IN HUMANS AT CONCENTRATIONS ABOVE 10% BY VOLUME, CONCENTRATIONS BELOW 10% ARE CONSIDERED SAFE FOR 0-5 MINUTE EXPOSURES.

===== Disposal Considerations =====

Waste Disposal Methods:RETURN CYLINDERS TO GREAT LAKES CHEMICAL CORPORATION, EL DORADO, ARKANSAS.

===== MSDS Transport Information =====

Transport Information:DOT: COMPRESSED GAS, N.O.S.

(B)

ROMOTRIFLUOROMETHANE) NON-FLAMMABLE GAS, UN 1956. EXPORT:  
BROMOTRIFLUOROMETHANE, NON-FLAMMABLE GAS, UN 1009, IMO CLASS 2.2.

===== Regulatory Information =====

SARA Title III Information:THIS CHEMICAL IS SUBJECT TO THE REPORTING  
REQUIREMENTS OF SECTION 313 OF TITLE III OF SUPERFUND AND 40 CFR  
372.

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