MSDS Date:12/04/1989

FSC:6810

NIIN:00-973-6472

MSDS Number: BGSQV === Responsible Party ===

Company Name: SIGMA CHEMICAL CO

Address:3050 SPRUCE ST

City:ST LOUIS State:MO ZIP:63103 Country:US

Info Phone Num:800-325-8070

Emergency Phone Num:314-771-5765

CAGE:21076 === Cont

ractor Identification ===

Company Name: SIGMA CHEMICAL COMPANY

Address:3050 SPRUCE ST

Box:14508 City:ST LOUIS State:MO ZIP:63178 Country:US

Phone:314-771-5765

CAGE:21076

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

Ingred Name: CHLOROFORM (SARA III)

CAS:67-66-3

RTECS #:FS9100000 Fraction by Wt: >99%

Other REC Limits: NONE RECOMMENDED

OSHA PEL:C 50 PPM

ACGIH TLV:10 PPM; A2; 9394

EPA Rpt Qty:10 LBS DOT Rpt Qty:10 LBS

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

======== LD50 LC50 Mixture:LD50 ORAL RAT=908MG/KG Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:NO Health Hazards Acute and Chronic:SEE SIGNS AND SYMPTOMS OF OVEREXPOSURE FOR ACUTE EFFECTS; CHRONIC EFFECTS: DAMAGE TO LIVER, KIDNEY, HEARING. Explanation of Carcinogenicity: CHLOROFORM IS A SUSPECTED HUMAN CARCINOGEN. Effects of Overexposure:EYE:IRRITATION,SKIN:IRRITATION,INHALATION: NAUSEA, IRRITATION TO MUCOUS MEMB RANCES & UPPER RESPIRATORY TRACT. Medical Cond Aggravated by Exposure: ALCOHOL CONSUMPTION INCREASES TOXIC EFFECTS. First Aid:EYES:FLUSH LARGE AMOUNTS OF WATER;SKIN:FLUSH WITH PLENTY OF WATER WHILE REMOVING CLOTH & SHOES; INHALATION: REMOVE TO FRESH AIR.GIVE CPR/OXYGEN IF NEEDED.SEE DOCTOR. Flash Point:NONE Extinguishing Media: USE WATER FOG, CARBO N DIOXIDE, FOAM, OR DRY CHEMICAL. Fire Fighting Procedures: FIRE FIGHTERS SHOULD USE NIOSH APPROVED SCBA & FULL PROTECTIVE EQUIPMENT WHEN FIGHTING CHEMICAL FIRE. USE WATER SPRAY TO COOL NEARBY CONTAINERS EXPOSED TO FIRE. Unusual Fire/Explosion Hazard: FIRE OR EXCESSIVE HEAT MAY CAUSE PRODUCTION OF HAZARDOUS DECOMPOSITION PRODUCTS, SUCH AS HYDROGEN GAS, PHOSGENE GAS, CARBON MONO &DIOXIDES. ======== Accidental Release Measures ============ Spill Release Proced ures:EVACUATE PERSONNEL.WEAR SCBA & PERSONAL PROTECTIVE CLOTHING & BOOTS.ABSORB IN INERT MATERIAL & CONTAINERIZE.FLUSH AREA WITH LARGE AMOUNT OF WATER. ============= Handling and Storage ========================== Handling and Storage Precautions: USE IN CHEMICAL FUME HOOD.DO NOT

BREATHE VAPOR.AVOID ALL CONTACT.KEEP TIGHTLY CLOSED.PROTECT FROM LIGHT.STORE IN COOL, DRY PLACE.

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

Respiratory Protection:NIOSH/M

SHA APPROVED RESPIRATORY DEVICE I/A/W EXPOSURE OF CONCERN. Ventilation: USE CHEMICAL FUME HOOD WITH EXHAUST VENTILATION. Protective Gloves: RUBBER Eye Protection: SPLASH GOGGLES Other Protective Equipment: EYE BATH, SAFETY SHOWER, APRON. Work Hygienic Practices: WASH THOROUGHLY AFTER HANDLING-LAUNDER CONTAMINATED CLOTHING BEFORE REUSE Supplemental Safety and Health ======== Physical/Chemical Properties ============= HCC:T4 Boiling Pt:B.P. Text:141F,61C Melt/Freeze Pt:M.P/F.P Text:-81F,-63C Vapor Pres:160 Vapor Density:4.1 Spec Gravity:1.492 Solubility in Water:SLIGHT Appearance and Odor: COLORLESS LIQUID WIYH SWEET ODOR. ======== Stability and Reactivity Data ========== SPARKS, AND OPEN FLAMES

Stability Indicator/Materials to Avoid:YES STRONG OXIDIZING AGENTS, BASES AND ALUMINUM. Stability Condition to Avoid: EXPOSURE TO LIGHT, HIGH TEMPERATURES, Hazardous Decomposition Products: HCL, PHOSGENE, CO, CO2.

====== Disposal Consideration S ============

Waste Disposal Methods: IGNITE IN PRESENCE OF SODIUM CARBINATE & CALCIUM HYDROXIDE.MATERIAL SHOULD BE MIXED WITH ABSORBENT & THEN WITH DRY CAUSTICS, WRAPPED IN PAPER & BURNED IN A CHEMICAL INCINERATOR WITH AFTERBURNER & SCRU BBER, OBSERVE FEDERAL, STATE & LOCAL LAWS.

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