

Product ID:CPE00251# CHLORINE MSDS Date:09/04/1997 FSC:6830 NIIN:00-169-0783 **MSDS Number: BPHXZ** === Responsible Party === **Company Name:OLIN CORPORATION** Address:501 MERRITT 7 Box:4500 City:NORWALK (FORMALLY IN STAMFORD, CT) State:CT ZIP:06856-4500 Country:US Info Phone Num:203-750-3000/203-750-3543 Emergenc y Phone Num:800-654-6911/203-356-2000 Preparer's Name: OLIN MSDS CNTRL GROUP CAGE:99530 === Contractor Identification === **Company Name:OLIN CORPORATION** Address:501 MERRITT 7 Box:4500 City:NORWALK State:CT ZIP:06856-4500 Country:US Phone:203-750-3000/800-511-MSDS CAGE:99530

Ingred Name:CHLORINE (SARA 302/313) (CERCLA) CAS:7782-50-5 RTECS #:FO2100000 Fraction by Wt: 98-100% Other REC Limits:NONE RECOMMENDED OSHA PEL:C 1 PPM ACGI H TLV:0.5 PPM/1 STEL; 9596 EPA Rpt Qty:10 LBS DOT Rpt Qty:10 LBS

LD50 LC50 Mixture: ORAL LD50: NOT AVAI-GAS @ROOM TEMPERATURE Routes of Entry: Inhalation: YES Skin: YES Ingestion: YES Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO Health Hazards Acute and Chronic:HARMFUL IF INHAL.CAUSES EYE/SKIN/RESP TRACT BURNS.CAN CAUSE LUNG DMG.ODOR THRESHOLD: APPROX 1.7MG/M3(0.3PPM).IDLH=10PPM.EYE:RED,PAIN,BLUR VISION,TEAR.LIQ C AUSE BURNS W/VISION IMPAIR, CORNEAL DMG.SKIN: IR RIT, RED, SWELL, SCAB FORM.LIQ BURNS, PROL CONTACT CAUSES DERMIS DESTRUCTION W/IMPAIR SKIN.INGEST: IRRIT/BURNS GI (AGGRAV MED) Explanation of Carcinogenicity: PER MSDS: NOT KNOWN OR REPORTED TO BE CARC BY ANY REF SOURCE INCLUDING IARC/OSHA/NTP/EPA. Effects of Overexposure: ACUTE: INHAL IRRIT NOSE/MOUTH/THROAT/LUNGS.MAY CAUSE INFLAMM TO RESP TRACT W/PRODUCTION OF LUNG EDEMA-SHORTNESS OF BREQATH, WHEEZ, CHOKE, CHEST PAIN, IMPARI LUNG FUNCTIO N.HI LEVELS CORRO TO RESP TRACT, LUNG DMG. CHRONIC: REP INAHL EXPO MAY CAUSE IMPAIRMENT OF LUNG FUNCITON & PERM LUNG DMG.MAY CONTRIBUTE TO DVLPMET OF BRONCHIT. Medical Cond Aggravated by Exposure: ASTHMA AND RESPIRATORY AND CARDIOVASCULAR DISEASE. HEALTH:TRACT,NAU,VOMIT,DIARR,ABD PAIN, BLEEDING, TISSUE ULCERATION. First Aid:EYE:IMMED FLUSH W/LG AMTS OF H2O @LEAST 15MINS,LIT UPPER/LOWER EYELIDS.CALL DR @ONCE.

SKIN:IMMED FLUSH W/H2O @LEAST 15MINS.CALL DR.CLOTH CONTACT PROD SHOULD BE REMOVED IMMED.INGST:IMMED DRINK LG QUANT OF H2O.DONT INDUCE VOMIT.CALL DR @ONCE.DONT GIVE ANYTHING BY MOUTH IF UNCONSC/CONVULS.INHAL:NAU,HEAD,DIZZ STOP WORK IMMED,MOVE TO FREDSH AIR TIL SYMPT DISAPPEAR.BREATH DIFF GIVE OXY.CALL DR.(SUPPLEME)

Flash Point:NA Autoignition Temp:Autoignition Temp Text:NP Lower Limits:NA Upper Limits:NA E xtinguishing Media:USE EXTINGUISHING MEDIA COMPATIBLE TO SURROUNDING MATERIALS.

Fire Fighting Procedures:USE WATER TO COOL CNTNR EXPO TO FIRE HOWEVER DIRECT SPRAY BETWEENFIRE/CNTNR.DONT SPRAY DIRECTLY ON CNTNR UNLESS ABSOLUTELY NECESSARY.H2O REACTIVE MATL;DONT(SUP) Unusual Fire/Explosion Hazard:OXIDIZER.WATER REACTIVE.CORROSIVE.

Spill Release Procedures: ALL TRANSP ACCIDENT: 800-424-9300 CHEMTREC. SUBJ TO RQ W/RES

PECT TO CL2.REF:40CFR302.4.HAZ CONC IN AIR MAY BE FOUND IN SPILL AREA/IMMED DOWNWIND.DONT PUT H2O ON PROD-GAS EVOLU INCR.EXPLO HAZ IF CONTACT W/INCOPAT MATL.REMOVE ALL IGN SOURCES.(DISPO)

Neutralizing Agent:MATL MAY BE NEUTRALIZED FOR DISPO;YOUR REQUESTED TO CALL OCEAN 800-OLIN-911.

Handling and Storage Precautions:DONT TAKE INTERNALLY.AVOID CONTACT W/SKIN/EYE/CLOTHING.UPON CONTACT W/SKIN/EYES WASH OFF W/W ATER.DONT

BREATHE GAS/VAP.STORE IN COOL DRY WELL VENTI PLC Other Precautions:DONT STORE @TEMPS ABOVE 59C/140F.SHELF LIFE LIMITATIONS:INDEF.TITNAIUM WILL RX VIGOROUSLY RESULTING IN SPONT IGN WHEN CONTACT BY DRY CHLORINE.COMBUST WILL BE SUPPORTED IN CARBON STEEL SYS/EQPMT W/CHLR INE ENVIRO @TEMPS >340F.PROPERLY(SUPPLE)

Respiratory Protection: IF AIR CONCENTRATIONS ABOVE TLV POSSIBLE WEAR NIOSH/MSHA APPROVE

D RESPIRATOR.WEAR NIOSH/MSHA APPROVED FULL-FACE RESPIRATOR EQUIPPED W/CHEM CARTRIDGES FOR CHLORINE GAS.

Ventilation: USE LOCAL EXHAUST VENTILATION TO MAINTAIN LEVELS TO BELOW TLV.

Protective Gloves:WEAR GLOVES-NEOPRENE,BUTYL RUBBER Eye Protection:FACE SHIELD W/SAF GLASSES.

Other Protective Equipment:WEAR BOOTS,APRON-NEOPRENE.FULL IMPERM SUIT RECOMMENDED IF EXPO POSSIBLE TO LG PORTION OF BODY.EMER EYEWASH,SAF SHOWER

Work Hygienic Practices: LAUNDER CONTAM CLOTH BEF REUSE. PROTECTION

CONCERNS MUST ADDRESS POT OF PHYS CHARACT OF PROD-COMPRESSED GAS,CORR,POISON. Supplemental Safety and Health FIRE/EXPLO:SPRAY W/H2O.CONTACT W/RX METLAS(AL)MAY RESULT IN GENERATION OF FLAMM H2 GAS. INCOMPAT:TITANIUM,ZN,TIN.ALKALIES,RED AGENTS,ORG MATLS. OTHER PRECAUT:PURGE SYSTEMS/EPQMT PRIOR TO CONDUCTING HO T WORK. 1STAID:INHAL VAP UNCONSC,MOVE IMMED TO FRESH AIR,CALL DR IMMED.STOP BREATH-ART RESP.ADE VENTI/RESP BEF WORKING.

========= Physical/Chemical Propert

HCC:G7

Boiling Pt:B.P. Text:-29F,-34C Melt/Freeze Pt:M.P/F.P Text:149F,65C Decomp Temp:Decomp Text:NONE Vapor Pres:114PSI Vapor Density:2.5 Spec Gravity:NA pH:NA Viscosity:NP Evaporation Rate & amp; Reference:HEAT OF VAP 123.67BTU/LB Solubility in Water:MISCIBLE Appearance and Odor:GREENISH LIQUID OR GAS, PRODUCT IS COMPRESSED GAS, ACRID ODOR Percent Volatiles by Volume:100 Corrosion Rate:NP

Stabili

ty Indicator/Materials to Avoid:YES NOTICE-SHOULDNT BE REPKG EXCEPT BY QUALIFIED/TRAIN PERSONNEL.ALKALIS,REDUCING AGENTS,ORG MATLS.RXS VIGOROUSLY W/(SUPPLE) Stability Condition to Avoid:NONE SPECIFIED BY MANUFACTURER. Hazardous Decomposition Products:HYDROCHLORIC ACID, HYPOCHLOROUS ACID

Waste Disposal Methods:SPILL:SURPRES VAP W/H2OFOG.CONTAIN FOG-NEU/TREAT.CL2 SINK IN H2O,BUBBLE TO FORM HYPOCHLOROUS ACID-SELF

DECOMPO.DIVERT TO HOLD AREA-TREAT/NEU.LAND-DIKE,COVER W/FOAM.NEU.WEAR PPE. WASTE-EPA D003,D001.SU BJ TO 40CFR268.CNTRL EVAPO WARRANT.TPQ:100LBS.SARA

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