Product ID: PRO PURE CALCIUM HYPOCHLORITE MSDS Date:10/05/1999 FSC:6810 NIIN:00-255-0471 Status Code:A MSDS Number: CLGFM === Responsible Party === Company Name: ARCH CHEMICALS, INC. Address:501 MERRITT 7 Box:5204 City:NORWALK State:CT ZIP:06856-5204 Country:US Info Phone Num:800-511-MSDS Emergency Phone Num:800-654-6911 Resp. Party Other MSDS Num.:00002-0191-30071 Chemtrec Ind/Phone:(800)424-9300 CAGE:TO530 === Contractor Identification === Company Name: ARCH CHEMICALS, INC. Address:501 MERRITT 7 Box:5204 City:NORWALK State:CT ZIP:06856-5204 Country:US Phone:800-511-MSDS CAGE:TO530 Company Name: TELECHEM INTERNATIONAL, INC Address:524 E WEDDELL DRIVE SUITE 3 Box:City:SUNNYVALE State:CA ZIP:94089-2115 Country:US Phone:916-941-3688 Contract Num:SP0450-01-M-ZD85 CAGE:1KH20

Ingred

Name:CALCIUM HYPOCHLORITE CAS:7778-54-3 RTECS #:NH3485000 Minumum % Wt:60. Maxumum % Wt:80. EPA Rpt Qty:10 LBS DOT Rpt Qty:10 LBS

Ingred Name:SODIUM CHLORIDE CAS:7647-14-5 RTECS #:VZ4725000 Minumum % Wt:10. Maxumum % Wt:20.

Ingred Name:CALCIUM CHLORIDE CAS:10043-52-4 RTECS #:EV9800000 Minumum % Wt:0. Maxumum % Wt:5.

Ingred Name:CALCIUM HYDROXIDE CAS:1305-62-0 RTECS #:EW2800000 Minumum % Wt:0. Maxumum % Wt:4. OSHA PEL:15 MG/M3 ACGIH TLV:5 MG/M3

Ingred Name:CALCIUM CARBONATE CAS:471-34-1 RTEC S #:FF9335000 Minumum % Wt:0. Maxumum % Wt:4.

Ingred Name:WATER CAS:7732-18-5 RTECS #:ZC0110000 Minumum % Wt:5.5 Maxumum % Wt:10.

LD50 LC50 Mixture:ORAL LD50 RAT: 850 MG/KG Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO Health Hazards Acute and Chronic:INHALATION: IRRITATING TO THE NOSE, MOUTH, THROAT & LUNGS. VAPORS CAN CAUSE BURNS TO THE RESPIRATORY TRA CT, PRODUCING LUNG EDEMA & IMPAIRMENT OF LUNG FUNCTION. POSSIBLE PERMANENT LUNG DAMAGE. EYES: S EVERE IRRITATION. MAY CAUSE IMPAIRMENT OF VISION & CORNEAL DAMAGE. SKIN: CAN CAUSE SEVERE IRRITATION & BURNS. MAY CAUSE PERMANENT DAMAGE. INGESTION: IRRITATION & BURNS CAN CAUSE GASTROINTESTINAL TRA CT & TISSUE ULCERATION. CHRONIC- INHALATION:MAY CAUSE IMPAIRMENT OF LUNG FUNCTION & PERMANENT LUNG DAMAGE.

Explanation of Carcinogenicity: THIS PRODUCT IS NOT KNOWN OR REPORTED T O

BE CARCINOGENIC.

Effects of Overexposure:INHALATION: SHORTNESS OF BREATH, WHEEZING, CHOKING, CHEST PAINS. SKIN: REDNESS, SWELLING & SCAB FORMATION. INGESTION: NAUSEA, VOMITING, DIARRHEA, ABDOMINAL PAIN, BLEEDING AND/OR TISSUE ULCERATION.

Medical Cond Aggravated by Exposure:ASTHMA, RESPIRATORY AND CARDIOVASCULAR DISEASE.

First Aid:EYE: IMMEDIATELY FLUSH WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MI

NUTES, OCCASIONALLY LIFTING UPPER AND LOWER EYELIDS. CALL PHYSICIAN AT ONCE. SKIN: IMMEDIATELY FLUSH WITH WATER FOR AT LEAST 15 MIN UTES. CALL PHYSICIAN. IF CLOTHING COMES IN CONTACT WITH PRODUCT, IT SHOULD BE REMOVED IMMEDIATELY AND LAUNDERED BEFORE REUSE. INGESTION: IMMEDIATELY DRINK LARGE QUANTITIES OF WATER. DO NOT INDUCE VOMI TING. CALL PHYSICIAN AT ONCE. DO NOT GIVE ANYTHING BY MOUTH IF THE PERSON IS UNCONSCIOUS OR HAVING CONVULSIONS. INHALATION: REMOVE VICTIM T

O FRESH AIR. SUPPORT RESPIRATION IF NEEDED. CALL PHYSICIAN.

Extinguishing Media:WATER ONLY Fire Fighting Procedures:USE WATER TO COOL CONTAINERS EXPOSED TO FIRE. RESPONSE TO THIS MATERIAL REQUIRES THE USE OF A FULL ENCAPSULATED SUIT AND A NIOSH APPROVED POSITIVE PRESSURE SUPPLIED AIR RESPIRATOR.

Spill Release Procedures: REMOVE ALL SOURCES OF

IGNITION. STOP SOURCE OF

SPILL AS SOON AS POSSIBLE. AIR RELEASE- SUPPRESS VAPORS BY USE OF A WATER FOG. ALL WATER MUST BE CONTAINED & DISPOSED OF. WATER RELEASE- MATERIAL IS HEAV IER THAN WATER & SOLUBLE. ADVISE LOCAL AUTHORITIES OF ANY CONTAMINATED WATER RELEASE. LAND SPILL- CONTACT 1-800-643-6911 IMMEDIATELY. DANGER. (SEE OTHER INFORMATION.) Neutralizing Agent:THIS MATERIAL MAY BE NEUTRALIZED FOR DISPOSAL; YOU ARE REQUESTED TO CONTACT AT 800-645-6911.

Handling and Storage Precautions: KEEP PRODUCT TIGHTLY SEALED IN ORIGINAL CONTAINERS. STORE PRODUCT IN A COOL, DRY, WELL VENTILATED AREA. KEEP FREE FROM INCOMPATIBLE MATERIALS. DO NOT STORE AT TEMPERATURES ABOVE 52 DEG. C (125 DEG. F).

Respiratory Protection:WEAR NIOSH APPROVED RESPIRATOR IF DUSTS ARE CREATED. NIOSH APPROVED FULLL FACE-PIECE RESPIRATOR WITH C HLORINE

CARTRIDGES AND DUST/MIST PREFILTER.

Ventilation: USE LOCAL EXHAUST VENTILATION TO MINIMIZE DUST AND CHLORINE LEVELS WHERE INDUSTRIAL USE OCCURS. ENSURE GOOD GENERAL VENTILATION.

Protective Gloves:WEAR NEOPRENE GLOVES

Eye Protection:SAFETY GLASSES; CHEMCIAL GOGGLES FOR INDUSTRIAL USE Other Protective Equipment:WHERE INDUSTRIAL USE OCCURS, CHEMICAL GOGGLES OR FULL IMPERMEABLE SUIT MAY BE REQUIRED. NEOPRENE (THIS INCLUDES: GLOVES, BOOTS, APRON, PROTECTIVE SUIT.) Supplemen

tal Safety and Health

HCC:D1 Vapor Density:0.8G/CC pH:10.4-10.8 (@1%) Evaporation Rate & amp; Reference:NA Solubility in Water:~18%@25C Appearance and Odor:WHITE, FREE-FLOWING POWDER; CHLORINE-LIKE ODOR.

Stability Indicator/Materials to Avoid:YES

OTHER POOL TREATMENT PRODUCTS, ACIDS, ORGANICS, NITROGEN-CONTAINING COMPOUNDS, DRY POWDER FIRE EXTINGUISHERS(

MONO-AMMONIUM PHOSPHATE), OXIDIZERS, CORROSIVE, FLAMMABLE OR COMBUSTIBLE MATERIALS. Stability Condition to Avoid:TEMPERATURES ABOVE 170C Hazardous Decomposition Products:CHLORINE GAS

Toxicological Information:DERMAL LD50: >2 G/KG (RABBIT). REPRODUCTIVE TOXICITY: CALCIUM HYPOCHLORITE IS NOT A TERATOGEN. MUTAGENICITY: THE RISK OF GENETIC DAMAGE TO HUMANS IS JUDGED NOT SIGNIFICANT.

====== Ecological In

Ecological:AQUATIC TOXICITY: BLUEGILL, 96 HR LC50: 0.088 MG/L (NOMINAL, STATIC). RAINBOW TROUT, 96 HR LC50: 0.16 MG/L (NOMINAL, STATIC). DAPHNIA MAGNA, 48 HR LC50: 0.11 MG/L (NOMINAL, STATIC).

Waste Disposal Methods:AS A HAZARDOUS SOLID WASTE, IT MUST BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS IN A PERMITTED HAZARDOUS WASTE TREATMENT, STORAGE AND D ISPOSAL FACILITY BY TREATMENT.

Transport Information: THIS MATERIAL IS REGULATED AS A DOT HAZARDOUS MATERIAL. DOT DESCRIPTION: CALCIUM HYPOCHLORITE, HYDRATED MIXTURES, 5.1, UN1880, PG II. REPORTABLE QUANTITY: 10 LBS. (PER 49 CFR 172.101, APPENDIX).

- SARA Title III Information:HAZARD CATEGORIES, PER 40 CFR 370.2-HEALTH: IMMEDIATE (ACUTE
- ), PHYSICAL: FIRE AND REACTIVITY. EMERGENCY PLANNING & COMMUNITY RIGHT-TO-KNOW, PER 40 CFR 355, APP.A- EXTREME HAZARDOUS SUBSTANCE - THRES HOLD PLANNING QUANTITY: NONE ESTABLISHED. SUPPLIER NOTIFICATION REQUIREMENTS, PER 40 CFR 372.45: NONE ESTABLISHED.
- Federal Regulatory Information: TOXIC SUBSTANCES CONTROL ACT: THIS SUBSTANCE IS LISTED ON THE TOXIC SUBSTANCES CONTROL ACT INVENTORY. REGULATED UNDER FIFRA, USDA & FDA.

======= Other Information =======

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