Product ID: PRO PURE CALCIUM HYPOCHLORITE MSDS Date:10/05/1999 FSC:6810 NIIN:01-358-4336 Status Code:A MSDS Number: CLGFN === 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 Em ergency 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-ZD86 CAGE:1KH20

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

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 A CGIH TLV:5 MG/M3

Ingred Name:CALCIUM CARBONATE CAS:471-34-1 RTECS #: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: 850MG/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, T HROAT & LUNGS. VAPORS CAN CAUSE BURNS TO THE RESPIRATORY TRACT, 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.

Explan

ation of Carcinogenicity: THIS PRODUCT IS NOT KNOWN OR REPORTED TO 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: IMME

DIATELY FLUSH WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES, 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 UN

CONSCIOUS OR HAVING CONVULSIONS.

INHALATION: REMOVE VICTIM TO 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.

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

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 AR E

CREATED. NIOSH APPROVED FULLL FACE-PIECE RESPIRATOR WITH CHLORINE 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.) Supplemental 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, N

ITROGEN-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
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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.
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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).
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Waste Disposal Methods:AS A HAZARDOUS SOLID WASTE, IT MUST BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULAT IONS IN A
PERMITTED HAZARDOUS WASTE TREATMENT, STORAGE AND DISPOSAL FACILITY BY TREATMENT.
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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).
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SARA Title III Information:HA ZARD 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,

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