Product ID:SILICA 1 REAGENT MSDS Date:04/29/1996 FSC:6810 NIIN:01-461-3318 Status Code:A MSDS Number: CJKXN === Responsible Party === Company Name: HACH CO Box:389 City:LOVELAND State:CO ZIP:80539-0389 Country:US Info Phone Num:970-669-3050 Emergency Phone Num:303-623-5716 CAGE:91224 === Contractor Identification ===

Company Name:HACH CO Address:5600 LINDBERGH DR Box:389 City:LOVELAND State:CO ZIP:80539 Country:US Phone:970-669-3050/ 303-623-5716 Contract Num:SP0450-99-M-NA98 CAGE:91224

Ingred Name:MOLYBDIC ACID CAS:7782-91-4 Minumum % Wt:5. Maxumum % Wt:10. OSHA PEL:10 MG/M3 ACGIH TLV:10 MG/M3

Ingred Name:SODIUM BISULFATE CAS:7681-38-1 RTECS #:VZ1860000 Minumum % Wt:5. Maxumum % Wt:10.

Ingred Name:SULFURIC ACID CAS:7664-93-9 RTECS #:W S5600000 Minumum % Wt:5. Maxumum % Wt:10. OSHA PEL:1 MG/M3 ACGIH TLV:1 MG/M3 ACGIH STEL:3 MG/M3 EPA Rpt Qty:1000 LBS DOT Rpt Qty:1000 LBS

Ingred Name:DEMINERALIZED WATER CAS:7732-18-5 Code:F RTECS #:ZC0110000

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER. Reports of Carcinogenicity:NTP:NO IARC:YES OSHA:NO Health Hazards Acute and Chronic:EYES: CAUSES EYE BURNS. SKIN: CAUSES BURNS. SKIN ABSORPTION: NONE REPORTED. I

NGESTION: CAUSES: BURNS.

MAY CAUSE: NAUEA, VOMITING, DIARRHEA, RAPID PULSE & RESPIRATIONS, LOSS OF APPETITE, CIRCULATORY D ISTURBANCES, ANEMIA, LIVER DAMAGE. INGESTION OF MOLYBDENUM MAY CAUSE LOSS OF COORDINATION, ENZYME ACTIVITY EFFECTS, COPPER DEFICIENCY, GOUT. INHALATION: CAN CAUSE BURNS. MAY CAUSE LIVER DAMAGE, DIFFIC ULT BREATHING, TOOTH EROSION, MOUTH SORENESS.

Explanation of Carcinogenicity: AN INGREDIENT OF THIS MIXTURE IS IARC GROUP 1: RECOGNIZED CARCINOGEN.

SULFURIC ACID-IARC EVALUATION WAS BASED ON EXPOSURE TO THE MIST OR VAPOR OF CONCENTRATED SULFURIC ACID GENERATED DURING CHEMICAL P ROCESSES. THE PRODUCT DOES NOT CONTAIN ANY NTP LISTED CHEMICALS. ADDITIONAL CANCER/REPRODUCTIVE/TOXICITY DATA: NONE REPORTED.

Effects of Overexposure:EYES: CAUSES EYE BURNS. SKIN: CAUSES BURNS. INGESTION: CAUSES: BURNS. MAY CAUSE: NAUEA, VOMITING, DIARRHEA, RAPID PULSE & RESPIRATIONS, LOSS OF APPETITE, CIRCULATORY DISTURBANCES, ANEMIA, L

IVER DAMA GE. INGESTION OF MOLYBDENUM MAY

CAUSE LOSS OF COORDINATION, ENZYME ACTIVITY EFFECTS, COPPER DEFICIENCY, GOUT. INHALATION: CAN CAUSE BURNS. MAY CAUSE LIVER DAMAGE, DIFFICULT BREATHING, TOOTH EROSION, M OUTH SORENESS. Medical Cond Aggravated by Exposure:PRE-EXISTING EYE CONDITIONS, SKIN CONDITIONS, RESPIRATORY CONDITIONS, GOUT.

First Aid:EYE CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES . CALL PHYSICIAN. SKIN CONTACT: WASH SKIN WITH PLENTY OF WATER FOR 15 MINUTES. CALL PHYSICIAN IMMEDIATELY. INGESTION: DO NOT INDUCE VOMITIN G! IF CONSCIOUS, GIVE 1-2 GLASSES OF WATER. CALL PHYSICIAN IMMEDIATELY. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. INHALATION: REMOVE TO FRESH AIR.

Flash Point:WILL NOT BURN.

Extinguishing Media: USE MEDIA APPROPRIATE TO SURROUNDING FIRE CONDITIONS.

Fire Fig

hting Procedures:AS IN ANY FIRE, WEAR SELF-CONTAINED BREATHING APPARATUS PRESSURE-DEMAND AND FULL PROTECTIVE GEAR. Unusual Fire/Explosion Hazard:NONE REPORTED. FLAMMABLE PROPERITES: MATERIAL WILL NOT BURN. DURING A FIRE, CORROSIVE & TOXIC GASSES MAY BE GENERATED BY THERMAL DECOMPOSITION.

Spill Release Procedures:ONLY PERSONS QUALIFIEDTO RESPOND TO AN EMERGENCY INVOLVING HAZARDOUS SUBSTANCES MAY RESPOND TO A SPI

LL IAW

29 CFR 1010.1200(A)(V). ABSORB SPILLED LIQUID WITH NON-REACTIVE SORBENT MATERIAL. STOP SPILLE D MATERIAL FROM BEING RELEASED TO THE ENVIRONMENT. COVER WITH ALKALI. SCOOP INTO A BEAKER & DISSOLVE IN WATER. ADJUST PH TO 6-9 WITH ALKALI. FLUSH REACTED MATERIAL TO DRAIN IN EXCESS WATER.

Neutralizing Agent:SODA ASH, SODIUM BICARBONATE.

Handling and Storage Precautions: STORE BETWEEN 10C & 25C. KEEP AWAY

FROM OXIDIZERS, REDUCERS. AVOID CONTACT WITH EYES, SKIN CLOTHING. DO NOT BREATH MIST OR VAPORS. WASH THOROUGHLY AFTER HANDLING. USE WITH ADEQUATE VENTILATION. MAINTA IN GENERAL INDUSTRIAL PRACTICES WHEN USING THIS PRODUCT. FLAMMABILITY CLASS: NOT APPLICABLE. Other Precautions:NONE SPECIFIED BY MANUFACTURER.

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

Respiratory Protection: ADEQUATE VENTILATION. Ventilation: USE GENERAL VENTILATION TO MINIMIZE EXPOSURE TO MI ST., VAPOR OR DUST.
Protective Gloves:DISPOSABLE LATEX GLOVES, LAB COAT.
Eye Protection:SAFETY GLASSES WITH TOP AND SID SHIELDS
Other Protective Equipment:HAVE A SAFETY SHOWER NEARBY. HAVE AN EYE WASH STATION NEARBY.
Work Hygienic Practices:MAINTAIN GENERAL INDUSTRIAL HYGIENE PRACTICES WHEN USING THIS PRODUCT.
Supplemental Safety and Health NONE SPECIFIED BY MANUFACTURER.

HCC:C1 Boiling Pt:B.P. Text:NOT DETERMINED

Melt/Freeze Pt:=100.C, 212.F Vapor Pres:NOT DETERMINED Spec Gravity:1.14-1.21 pH: