Product ID:CAT#1055 SULFAMIC ACID POWDER PILLOWS MSDS Date:05/29/1998 FSC:6850 NIIN:01-423-1699 Status Code:A MSDS Number: CKFFR === Responsible Party === Company Name: HACH COMPANY Box:389 City:LOVELAND State:CO ZIP:80539 Country:US Info Phone Num:970-669-3050 Emergency Phone Num:303-623-5716/515-232-2533 Resp. Party Other MSDS Num.: M00007 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 CAGE:91224

Ingred Name:SULFAMIC ACID CAS:5329-14-6 RTECS #:WO5950000 > Wt:99.

Ingred Name:OTHER COMPONENT &It; Wt:1.

LD50 LC

Routes of Entry: Inhalation:NO Skin:NO Ingestion:NO Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO Health Hazards Acute and Chronic:ACUTE EFFECTS: EYE CONTACT: CAUSES EYE BURNS. SKIN CONTACT: CAUSES SEVERE IRRITATION. SKIN ABSORPTION: NONE REPORTED. INHALATION: MAY CAUSE IRRITATION OF NOSE, THROAT, AND RESPIRATORY TRACT. INGESTION : MAY CAUSE IRRITATION OF THE MOUTH, ESOPHAGUS, AND GASTROINTESTINAL TRACT. CHRONIC EFFECTS: NONE R

EPORTED. TARGET ORGANS: NONE REPORTED.

50 Mixture:ORAL, RAT LD50 = 3,160 MG/KG.

Explanation of Carcinogenicity:NOT LISTED BY O.S.H.A., IARC, NTP.

Effects of Overexposure:EYE CONTACT: BURNS. SKIN CONTACT: SEVERE IRRITATION. INGESTION: IRRITATION OF MOUTH, ESOPHAGUS, GASTROINTESTINALTRACT. INHALATION: IRRITATION OF NOSE, THROAT, AND

RESPIRATORY TRACT.

Medical Cond Aggravated by Exposure:PRE-EXISTING EYE CONDITIONS, SKIN CONDITIONS, RESPIRATORY CONDITIONS.

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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 VOMI TING. GIVE 1-2 GLASSES OF WATER. CALL PHYSICIAN IMMEDIATELY. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. INHALATION: REMOVE TO FRESH AIR.

Extinguishing Media:DRY CHEMICAL, WATER.

Fire Fighting Procedures: AS IN ANY FIRE, WEAR SELF-CONTAINED BREATHING APPARATUS, PRESSURE-DEMAND, AND FULL PROTECTIVE GEAR. Unusual Fire/Explosion Hazard: MAY REACT VIOLENTLY WITH CHLORINE/CHLORINE COMPOUNDS, METAL NITRATES, METAL NITRITES, NITRIC ACID. STATIC DISCHARGE: NONE REPORTED. MECHANICAL IMPACT: NONE REPORTED.

Spill Release Procedures: STOP SPILL RELEASE. COVER SOLID MATERIAL WITH SAND OR OTHER IN

ERT MATERIAL. SCOOP UP INTO LARGE BEAKER. DISSOLVE WITH WATER. ADJUST PH BETWEEN 6 AND 9 WITH ALKALI, SUCH AS SODA ASH OR SODIUM BICARBO NATE. FLUSH REACTED MATERIAL TO DRAIN WITH LARGE EXCESS OF WATER. DECONTAMINATE AREA WITH SOAP SOLUTION. EVACUATE 15 FOOT RADIUS IF POUND OF LOOSE POWDER IS SPILLED; LARGER AREA IF CONDITIONS WARANT.

Neutralizing Agent: ALKALI MATERIAL SUCH AS SODA ASH OR SODIUM BICARBONATE.

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Handling and Storage Precautions:HANDLING: AVOID CONTACT WITH EYES, SKIN. DO NOT BREATHE DUST. MAINTAIN GENERAL INDUSTRIAL HYGIENE PRACTICES WHEN USING THIS PRODUCT. STORAGE: STORE AWAY FROM OXIDIZERS, ALKALIES, CHLORINE/CHLORINATED METALS. PROTECT FROM HEAT, MOISTURE.

Respiratory Protection: ADEQUATE VENTILATION FOR INHALATION PROTECTION. IN CASE OF FIRE, WEAR SELF-CONTAINED BREATHING APPARATUS,

PRESSURE-DEMAND.

Ventilation: ADEQUATE VENTILATION FOR INHALATION PROTECTION. Protective Gloves: DISPOSABLE LATEX GLOVES.

Eye Protection: SAFETY GLASSES WITH TOP AND SIDE SHIELDS.

Other Protective Equipment:LAB COAT, HAVE AN EYE WASH STATION NEARBY. Work Hygienic Practices:MAINTAIN GENERAL INDUSTRIAL HYGIENE PRACTICES WHEN USING PRODUCT. AVOID CONTACT WITH EYES, SKIN. DO NOT BREATHE DUST. WASH AFTER HANDLING. KEEP AWAY FROM ALKALIES, METALS. PROTECT FROM HEAT, MOISTURE.

Supplemental S

afety and Health

KEY1: C1. THIS ITEM IS NSN 6850-01-200-8010, CAGE 91224 WHICH IS PART 5 OF A 12 PART KIT. (10 PARTS HAZARDOUS). SEE THIS NSN AND PART 1-10 FOR THE MSDS'S WHICH ARE THE HAZARDOUS COMPONENTS OF THIS KI T. THE NON-HAZARDOUS ITEMS ARE NSN-01-350-9102; CARTRIDGE ELEMENT AND NSN: 4330-01-350-9101; FILTER.

HCC:C1 Melt/Freeze Pt:=205.C, 401.F Spec Gravity:2.15 pH:1.18 Solubility in Water:1:2 RATIO@ 1 76F Appearance and Odor:SOLID WHITE CRYSALS. NO ODOR.

Stability Indicator/Materials to Avoid:YES MAY REACT VIOLENTLY IN CONTACT WITH CHLORATES, METAL NITRATES, METAL NITRITES, NITRIC ACID. INCOMPATIBLE WITH ALKALIES, OXIDIZERS.

Stability Condition to Avoid:STABLE WHEN STORED UNDER PROPER CONDITIONS. AVOID HEATING TO DECOMPOSITION, EXCESS MOISTURE.

Hazardous Decomposition Products:HEATING TO DECOMPOSITION, EXCESS MOISTORE.

TOXIC AND OR CORROSIVE FUMES OF AMMONIA, NITROGEN OXIDES, SULFUR OXIDES.

Conditions to Avoid Polymerization: WILL NOT OCCUR.

Toxicological Information:ORAL RAT LD50=3,160 MG/KG. LC50: NONE REPORTED. DERMAL TOXICITY DATA: NONE REPORTED. SKIN AND EYE IRRITATION DATA: SKIN HUMAN 4%/5 DAYS INTERMITTENT= MILD. SKIN RABBIT 500 MG/24H= SEVERE. EYE RABBIT 2 0 MG= MODERATE. EYE RABBIT 250 MICRO GM/ 24H= SEVERE. MUTATI ON DATA: NONE REPORTED.

REPRODUCTION DATA: NONE REPORTED.

Ecological:NO ECOLOGICAL DATA AVAILABLE FOR THIS PRODUCT.

 Waste Disposal Methods:DILUTE WASTE TO 3 TO 5 TIMES VOLUME WITH COLD WATER. ADJUST PH BETWEEN 6 AND 9 WITH ALKALI, SUCH AS SODA ASH OR SODIUM BICARBONATE. OPEN COLD WATER TAP COMPLETELY, SLOWLY POUR REACTED MATERIAL TO DRA IN.
EMPTY CONTAINERS: RINSE 3 TIMES WITH
SOLVENT, BINSATE MAX CONTAIN SUFFICIENT PRODUCT TO DISPOSE OF AS

SOLVENT. RINSATE MAY CONTAIN SUFFICIENT PRODUCT TO DISPOSE OF AS HAZARDOUS WASTE. CONSULT LOCAL REGULATORS.

Transport Information:D.O.T.: PROPER SHIPPING NAME: SULPHAMIC ACID, CLASS 8, UN 2967, PKG I I I. I.C.A.O.:SULPHAMIC ACID, CLASS 8, UN 2967, PKG I I I. I.M.O: SULPHAMIC ACID, CLASS 8, UN 2967, PKG I I I.

SARA Title III Information:SECTION 311/312CATEGPROZATION (40 CFR 370): IMMEDIATE (ACUTE) HEALTH HAZARD. SECTION 313 (40 CFR 372): THIS PRODUCT DOES NOT CONTAIN ANY CHEMICAL SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313. 302 (EHS) TPQ (40 CFR 355): NOT APPLICABLE. 304 CERCLA RQ (40 CFR 302.4): NOT APPLICABLE. 304 EHS RQ (40 CFR 355): NOT APPLICABLE. CLEAN WATER ACT (40 CFR 116.4): NOT APPLICABLE. RCRA: CONTAINS RCRA R EGULATED SUBSTANCES, EPA WASTE I

D NUMBER=D002. C.P.S.C.: NOT APPLICABLE.

Federal Regulatory Information:O.S.H.A.: THIS PRODUCT MEETS THE CRITERA FOR A HAZARDOUS SUBSTANCE AS DEFINED IN THE HAZARD COMMUNICATION STANDARD, (29 CFR 1910.1200).

State Regulatory Information:CALIFORNIA PROP. 65: NO PROP. 65 LISTED CHEMICALS ARE PRESENT IN THIS PRODUCT. IDENTIFICATION OF PROP. 65 INGREDIENT: NOT APPLICABLE.

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particular situation.