

UNOCAL CORPORATION -- SULFURIC ACID -- 6810-00-975-0707

===== Product Identification =====

Product ID:SULFURIC ACID
MSDS Date:08/23/1991
FSC:6810
NIIN:00-975-0707
Status Code:A
MSDS Number: CJNSR
=== Responsible Party ===
Company Name:UNOCAL CORPORATION
Address:1201 WEST 5TH STREET
Box:7600
City:LOS ANGELES
State:CA
ZIP:90017
Info Phone Num:800-424-9300 800-356-3129,POISN CTL
Emergency Phone Num:2
13-977-7589
CAGE:DO721
=== Contractor Identification ===
Company Name:PROCHEM SPECIALITY PRODUCTS INC
Address:115E 18TH ST
Box:City:NATIONAL CITY
State:CA
ZIP:91950
Country:US
Phone:619-474-6494
Contract Num:SP0450-99-MNE40
CAGE:65799
Company Name:UNOCAL CORPORATION
Address:1201 WEST 5TH STREET
Box:7600
City:LOS ANGELES
State:CA
ZIP:90017
Phone:800-424-9300 800-356-3129,POISN CTL
CAGE:DO721

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

Ingred Name:SULFURIC ACID
CAS:7664-

93-9
RTECS #:WS5600000
Minumum % Wt:93.
Maxumum % Wt:99.
OSHA PEL:1 MG/CUM
ACGIH TLV:1 MG/CUM=IC
EPA Rpt Qty:1000 LBS
DOT Rpt Qty:1000 LBS

Ingred Name:SULFUR DIOXIDE
CAS:7446-09-5
RTECS #:WS4550000
Other REC Limits:2 PPM
OSHA PEL:13 MG/CUM
ACGIH TLV:5.2 MG/CUM

Ingred Name:WATER
CAS:7732-18-5
RTECS #:ZC0110000
Minumum % Wt:1.
Maxumum % Wt:7.

===== Hazards Identification =====

Routes of Entry: Inhalation:YES Skin:NO Ingestion:YES
Reports of Carcinogenicity:N
TP:NO IARC:YES OSHA:NO
Health Hazards Acute and Chronic:EYES: SEVERE BURNS,
CORNEAL/IRREVERSIBLE DAMAGE. SKIN: SEVERE BURNS/IRRITATING/DAMAGE.
INHALATION: SEVERE IRRITATION/BURNS OF THE NOSE, THROAT/RESPIRATORY
TRACT. INGESTION: HARMFUL/FATAL. SEVERE IRRIT ATION/BURNS OF THE
MOUTH, THROAT & DIGESTIVE TRACT.
Explanation of Carcinogenicity:SULFUR DIOXIDE: A4 GROUP; SULFURIC ACID:
A2 FOR MIST.
Effects of Overexposure:IRRITATION, BURNS, STINGING, TEARING, REDNESS,
SWELLIN
G. NOTE TO PHYSICIAN: INGESTION- LONG TERM COMPLICATIONS MAY
INCLUDE ESOPHAGEAL, GASTRIC/PYLORIC STRICTURES & STENOSIS. CASE
STUDIES SUGGEST THAT ACID INGESTION MAY INCREASE THE RISK
OFSTOMACH CANCER.
Medical Cond Aggravated by Exposure:PRE-EXISTING SKIN & LUNG DISORDERS.

===== First Aid Measures =====

First Aid:EYES: MOVE TO FRESH AIR. FLUSH W/CLEAN WATER FOR 30 MINS.
SKIN: FLUSH W/LARGE AMOUNTS OF WATER. IF DAMAGED, APPLY A CLEAN
DRE

SSING. IF NOT DAMAGED, WASH W/MILD SOAP/WATER. INHALATION: MOVE TO FRESH AI R. APPLY CPR/OXYGEN IF NECESSARY. INGESTION: DON'T INDUCE VOMITING. IF CONSCIOUS RINSE MOUTH W/WATER & DILUTE W/GLASS OF MILK/WATER. DON'T LEAVE UNATTENDED. OBTAIN MEDICAL ATTENTION IN ALL CASES.

===== Fire Fighting Measures =====

Flash Point:NONE TO BOILING

Extinguishing Media:DRY CHEMICAL/CO2. AVOID DIRECT USE OF WATER.

Fire Fighting Procedures:WEAR PROTECTIVE EQUIPME

NT W/RESPIRATOR. STOP

RELEASE/MOVE UNDAMAGED CONTAINERS SAFELY. USE WATER SPRAY TO COOL EQUIPMENT/MINIMIZE VAPORS. SMALL COMBUSTIBLES MAY BE SMOTHERED W/SUITABLE DRY CHEMICALS. AVOID USING WATER DIRECTLY ON ACID ASIT EVLOVES HEAT AND CAUSES SPLATTERING.

Unusual Fire/Explosion Hazard:MATERIAL MAY IGNITE COMBUSTIBLES &

ATTACKS COMMON METALS. CLOSED CONTAINERS EXPOSED TO EXTREME HEAT MAY RUPTURE. VAPORS ARE > AIR & ACCUMULATE IN LOW AREAS.

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

Spill Release Procedures:STAY UPWIND/AWAY. ISOLATE AREA. STOP RELEASE W/O RISK. KEEP COMBUSTIBLES AWAY. WEAR PROTECTIVE EQUIPMENT. PREVENT FROM ENTERING WATERWAYS/DRAINAGE SYSTEMS. DIKE. ABSORB W/INERT NON-COMBUSTIBLE MATERIA L/PLACE IN SEALED CONTAINERS. NEUTRALIZE RESIDUE WITH DILUTE SOLUTION OF LIME OR SODIUM CARBONATE.

Neutralizing Agent:SOLUTION OF LIME OR SODIUM CARBONATE.

===== Handling and Storage =====

Handling and Storage Precautions:USE/STORE IN COOL, DRY, WELL VENTILATED AREA AWAY FROM ORGANICS. KEEP CONTAINERS CLOSED. STORE ONLY IN APPROVED CONTAINERS. PROTECT CONTAINERS FROM PHYSICAL DAMAGE.

Other Precautions:DON'T GET IN EYES/SKIN/CLOTHING. DON'T BREATHE VAPOR/MIST. DON'T TASTE/SWALLOW. THIS PRODUCT HAS A GREAT AFFINITY FOR WATER. ABSTRACTING IT FROM THE AIR/ORGANIC SUBSTANCES, WILL CHAR WOOD.

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

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Respiratory Protection:USE RESPIRATORY PROTECTION WHEN CONCENTRATIONS EXCEED THE EXPOSURE LIMITS. DEPENDING ON THE AIRBORNE CONCENTRATION, USE A POWERED AIR PURIFYING RESPIRATOR WITH HEPA FILTER OR A SUPPLIED AIR RESPIRATOR . NIOSH APPROVED IF AVAILABLE. DO NOT USE A CHEMICAL CARTRIDGE RESPIRATOR.

Ventilation:IF CURRENT PRACTICES ARE NOT ADEQUATE TO MAINTAIN CONCENTRATIONS < EXPOSURE LIMITS, ADDITIONAL EXHAUST IS REQUIRED.

Protective Gloves:IMPERMEABLE

Eye Protection:F

ACE SHIELD/CHEMICAL GOGGLES.

Other Protective Equipment:IMPERVIOUS CLOTHING, EYE WASH & QUICK DRENCH SHOWER.

Work Hygienic Practices:REMOVE/LAUNDER CONTAMINATED CLOTHING BEFORE REUSE. WASH THOROUGHLY AFTER HANDLING. USE GOOD PERSONAL HYGIENE PRACTICE.

Supplemental Safety and Health

NOTE TO PHYSICIAN: ACID INGESTION MAY CAUSE GASTROESOPHAGEAL PERFORATION/ABSCESS FORMATION W/IN 72 HOURS/WEEKS LATER.

===== Physical/Chemical Properties =====

HCC:C1

Boili

ng Pt:B.P. Text: 260-538F

Vapor Density:3.4

Spec Gravity:1.82-1.84

Evaporation Rate & Reference:(N-BU AC=1):