

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:

213-977-7589

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.

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

Routes of Entry: Inhalation:YES Skin:NO Ingestion:YES

Reports of Carcinogenicity:

NTP: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 IRRITATION/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,
SWELLI

NG. 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.

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===== 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
DR

ESSING. IF NOT DAMAGED, WASH W/MILD SOAP/WATER. INHALATION: MOVE TO FRESH AIR. 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 EQUIPMENT 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 AS IT DEVELOVES 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 MATERIAL/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:

FACE 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

Boil

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

Vapor Density:3.4

Spec Gravity:1.82-1.84

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