

LOS ANGELES CHEMICAL CO -- SULFURIC ACID,CONCENTRATED

=====
MSDS Safety Information
=====

FSC: 6810
NIIN: 00-975-0707
MSDS Date: 06/18/1993
MSDS Num: BYDJV
Product ID: SULFURIC ACID,CONCENTRATED
MFN: 01
Responsible Party
Cage: 75656
Name: LOS ANGELES CHEMICAL CO
Address: 4545 ARDINE STREET
City: SOUTH GATE C
A 90280
Info Phone Number: 213-583-4761/800-356-3129 (POISON)
Emergency Phone Number: 213-562-9500
Preparer's Name: B. MARTINEZ
Published: Y

=====
Contractor Summary
=====

Cage: 75656
Name: LOS ANGELES CHEMICAL CO
Address: 4545 ARDINE ST
Box: 1987
City: SOUTH GATE CA 90280
Phone: 213-562-9500

=====
Item Description Information
=====

=====
Item Manager: S9G
Item Name: SULFURIC ACID,TECHNICAL
Specification Number: A-A55828
Type/Grade/Class: TY I, CL 2
Unit of Issue: DR
Quantitative Expression: 00000000013GL
UI Container Qty: 0
Type of Container: DRUM

=====
Ingredients
=====

Cas: 7664-93-9
RTECS #: WS5600000
Name: SULFURIC ACID (SARA 302/313) (CERCLA)
% low Wt: 93.
% high Wt: 98.
Other REC Limits:

NONE RECOMMENDED

OSHA PEL: 1 MG/M3

ACGIH TLV: 1 MG/M3/3 STEL; 9495

EPA Rpt Qty: 1000 LBS

DOT Rpt Qty: 1000 LBS

Cas: 7732-18-5

RTECS #: ZC0110000

Name: WATER

% Wt: BALANCE

Other REC Limits: NONE RECOMMENDED

=====
Health Hazards Data
=====

LD50 LC50 Mixture: LD50 (ORAL, RAT): 2140 MG/M3

Route Of Entry Inds - Inhalation: YES

Skin: YES

Ingestion: YES

Carcinogenicity In

ds - NTP: NO

IARC: NO

OSHA: NO

Effects of Exposure: CONCENTRATED SULFURIC ACID IS A STRONG MINERAL ACID, AN OXIDIZING AGENT AND A DEHYDRATING AGENT THAT IS RAPIDLY DAMAGING TO ALL HUMAN TISSUE ON CONTACT. INGESTION MAY CAUSE SEVERE INJURY OR DEATH. EYE CONTACT PRODUCES SEVERE OR PERMANENT INJURY. INHALATION OF MISTS CAN DAMAGE BOTH UPPER RESPIRATORY TRACT AND LUNGS.

Explanation Of Carcinogenicity: THIS PRODUCT IS NOT CONSIDERED A CARCINOGEN BY NTP, IARC OR OSHA.

First Aid: EYE

CONTACT: IMMEDIATELY FLUSH WITH PLENTY OF RUNNING WATER FOR AT LEAST 15 MINUTES. OBTAIN MEDICAL HELP AS SOON AS POSSIBLE. SKIN CONTACT: IMMEDIATELY FLUSH AREAS WITH WATER, REMOVING CONTAMINATED CLOTHES WHILE UNDER A SAFETY SHOWER. CONTINUE WASHING WITH WATER AND GET MEDICAL ATTENTION. INHALATION: REMOVE TO FRESH AIR. RESTORE BREATHING. CALL A PHYSICIAN IMMEDIATELY. INGESTION: DILUTE ACID IMMEDIATELY WITH LARGE AMOUNTS OF MILK OR WATER, THEN MILK OF MAGNESIA. NEVER GIVE ANYTHING BY MOUTH IF VICTIM UNCONSCIOUS. DO NOT INDUCE VOMITING! GET IMMEDIATE MEDICAL ATTENTION.

=====
Handling and Disposal
=====

Spill Release Procedures: NOTIFY SAFETY PERSONNEL. PROVIDE VENTILATION. STOP LEAK IF CAN BE DONE WITHOUT RISK. CLEAN-UP PERSONNEL NEED RESPIRATORY PROTECTION AND PROTECTION AGAINST CONTACT. KEEP UPWIND. CONTAIN SPILL. DILUTE WITH WATER THEN NEUTRALIZE

WITH SODA ASH OR LIME. IF NO WATER, COVER
CONTAMINATED AREA WITH SAND, ASHES OR GRAVEL AND NEUTRALIZE CAUTIOUSLY WITH
SODA ASH OR LIME.

Neutralizing Agent: SODIUM BICARBONATE OR A SODA ASH.

Waste Disposal Methods: FOLLOW FEDERAL, STATE AND LOCAL REGULATIONS. RUNOFF TO
SEWER MAY CREATE HYDROGEN GAS, WHICH IS A FIRE OR EXPLOSION HAZARD. EPA
(CWA) RQ=1000 LBS (40 CFR 117).

Handling And Storage Precautions: SULFURIC ACID IN CARBOYS OR DRUMS SHOULD BE
STORED IN A CLEAN, VENTILATED S
TORAGE AREA HAVING ACID-RESISTANT FLOORS.

KEEP OUT OF DIRECT SUNLIGHT. DO NOT STORE ABOVE 89.6F (32C). STORE AWAY
FROM INCOMPATIBLE MATERIALS. SODA ASH, SAND OR LIME SHOULD BE KEPT
AVAILABLE FOR EMERGENCY USE.

Other Precautions: PROTECT CONTAINERS AGAINST PHYSICAL DAMAGE. GLASS BOTTLES
NEED EXTRA PROTECTION. DO NOT ADD WATER TO SULFURIC ACID. DRUMS MAY CONTAIN
HYDROGEN GAS, OPEN CAUTIOUSLY. USE NONSPARKING TOOLS FREE OF OIL, DIRT &
GRIT; VAPOR-PROOF ELECTRICAL FIXTURES. AVOID BREATHING MIST OR VAPORS. AVOID
CONTACT WITH SKIN /EYES. DO NOT INGEST.

=====
Fire and Explosion Hazard Information
=====

Flash Point Text: NONE

Extinguishing Media: SMALL FIRES MAY BE SMOTHERED WITH SUITABLE DRY CHEMICAL.
COOL EXTERIOR OF SULFURIC ACID STORAGE TANKS WITH WATER TO PREVENT RUPTURE
IF EXPOSED TO FIRE.

Fire Fighting Procedures: FIRE FIGHTERS MUST WEAR SELF-CONTAINED BREATHING

EQUIPMENT AND FULLY PROTECTIVE CLOTHING.

Unusual Fire/Explosion Hazard: THE ACID, ESPECIALLY WHEN DILUTED WITH WATER,
CAN REACT WITH METALS TO LIBERATE FLAMMABLE HYDROGEN GAS. SULFURIC ACID
MISTS & VAPORS ARE CORROSIVE. SULFURIC ACID MISTS AND VAPORS FROM A
FIRE AREA ARE CORROSIVE.

=====
Control Measures
=====

Respiratory Protection: WHERE MISTS ARE UP TO 50 MG/M3, A HIGH EFFICI
ENCY

PARTICULATE RESPIRATOR WITH FULL FACEPIECE IS WARRANTED; A TYPE-C SUPPLIED
AIR RESPIRATOR WITH FULL FACEPIECE OPERATED IN PRESSURE DEMAND MODE IS
USED TO 100 MG/M3.

Ventilation: PROVIDE GENERAL VENTILATION TO MEET CURRENT TLV REQUIREMENTS IN
THE WORKPLACE.

Protective Gloves: ACID RESISTANT GLOVES-PVC, NEOPRENE, RUBBER.

Eye Protection: CHEMICAL SPLASH GOGGLES AND/OR FACE SHIELD.

Other Protective Equipment: ACID-RESISTANT PROTECTIVE COTHING SUCH AS RUBBER
APRONS, BOOTS AND SUIT

S IS RECOMMENDED. EYE WASH FOUNTAIN AND SAFETY SHOWERS WITH DELUGE HEADS SHOULD BE READILY AVAILABLE. Supplemental Safety and Health: AVOID PROLONGED OR REPEATED EXPOSURE. DO NOT GET ON SKIN OR IN EYES. DO NOT BREATHE VAPORS OR MISTS.

=====

Physical/Chemical Properties

=====

HCC: C1
Boiling Point: =281.C, 537.8F
Melt/Freeze Pt: =-33.7C, -29.F
Vapor Pres: <1 MM HG @ 100F
Vapor Density: 6
6 DEG BE
Spec Gravity: 1.8354 - 1.84
PH: <1
Solubility in Water: COMPLETELY MISCIBLE
Appearance and Odor: CLEAR, COLORLESS, HYGROSCOPIC, OILY LIQUID; ODORLESS
Percent Volatiles by Volume: 100

=====

Reactivity Data

=====

Stability Indicator: YES
Stability Condition To Avoid: HIGH HEAT, OPEN FLAMES AND OTHER SOURCES OF IGNITION
Materials To Avoid: BASES, METALS. SULFURIC ACID IS A DEHYDRATING AGENT,
PICKING MOISTURE READILY FROM AIR OR OTHER MATERIALS. REACTS EXOTHERMICALLY WITH WATER.
Hazardous Decomposition Products: OXIDES OF SULFUR AND HYDROGEN.
Hazardous Polymerization Indicator: NO
Conditions To Avoid Polymerization: HAZARDOUS POLYMERIZATION DOES NOT OCCUR.

=====

Toxicological Information

=====

=====

Ecological Information

=====

=====

MSDS Transport Information

=====

Transport Information: LABEL: CORROSIVE. DOT CLASS: CORROSIVE MATERIAL. UN REGISTER: UN1830.

=====

Regulatory Information

=====

=====

Other Informati

on

=====
Other Information: NFPA HAZARD RATINGS: FLAMMABILITY=0; HEALTH=3; REACTIVITY=2;
SPECIAL=W.
=====

=====
Transportation Information
=====

Responsible Party Code: 75656
Trans ID NO: 96064
Product ID: SULFURIC ACID,CONCENTRATED
MSDS Prepared Date: 06/18/1993
Review Date: 03/28/2000
MFN: 1
Net Unit Weight: 199 LBS
Multiple KIT Number: 0
Review I
ND: Y
Unit Of Issue: DR
Container QTY: 0
Type Of Container: DRUM
Additional Data: SULFURIC ACID CONCENTRATIONS: 93-98%. UN NUMBER, PER MSDS.
=====

=====
Detail DOT Information
=====

DOT PSN Code: NUC
DOT Proper Shipping Name: SULFURIC ACID
DOT PSN Modifier: WITH MORE THAN 51 PERCENT ACID
Hazard Class: 8
UN ID Num: UN1830
DOT Packaging Group: II
Label: CORROSIVE
Special Provision: A3,A7,B3,B83,B84,N34,T
9,T27
Packaging Exception: 154
Non Bulk Pack: 202
Bulk Pack: 242
Max Qty Pass: 1 L
Max Qty Cargo: 30 L
Vessel Stow Req: C
Water/Ship/Other Req: 14
=====

=====
Detail IMO Information
=====

IMO PSN Code: OFJ
IMO Proper Shipping Name: SULPHURIC ACID
IMO PSN Modifier: ,WITH MORE THAN 51% ACID
IMDG Page Number: 8230
UN Number: 1830
UN Hazard Class: 8
IMO Packaging Group: II
Subsidiary Risk Label: -
EMS Numb

er: 8-06
MED First Aid Guide NUM: 700

=====
Detail IATA Information
=====

IATA PSN Code: XIX
IATA UN ID Num: 1830
IATA Proper Shipping Name: SULPHURIC ACID
IATA PSN Modifier: WITH MORE THAN 51% ACID
IATA UN Class: 8
IATA Label: CORROSIVE
UN Packing Group: II
Packing Note Passenger: 809
Max Quant Pass: 1L
Max Quant Cargo: 30L
Packaging Note Cargo: 813
=====

=====
Detail AFI Information
=====

AFI PSN Code: XIX
AFI Proper Shipping Name: SULPHURIC ACID
AFI PSN Modifier: WITH MORE THAN 51% ACID
AFI Hazard Class: 8
AFI UN ID NUM: UN1830
AFI Packing Group: II
Special Provisions: P4, A3, A7, N34
Back Pack Reference: A12.3
=====

HAZCOM Label
=====

Product ID: SULFURIC ACID,CONCENTRATED
Cage: 75656
Compa
ny Name: LOS ANGELES CHEMICAL CO
Street: 4545 ARDINE ST
PO Box: 1987
City: SOUTH GATE CA
Zipcode: 90280
Health Emergency Phone: 213-562-9500
Label Required IND: Y
Date Of Label Review: 03/28/2000
Status Code: C
Year Procured: 2000
Origination Code: F
Chronic Hazard IND: Y
Eye Protection IND: YES
Skin Protection IND: YES
Signal Word: DANGER
Respiratory Protection IND: YES
Health Hazard: Slight
Contact Hazard: Severe
Fire Hazard: None
Reactivity Hazard: Slight
Hazard And Precautions: CORROSIVE! SU

LFURIC ACID IS RAPIDLY DAMAGING TO ALL HUMAN TISSUE ON CONTACT.INGESTION MAY CAUSE SEVERE INJURY OR DEATH.EYE CONTACT PRODUCES SEVERE OR PERMANENT INJURY.INHALATION OF MISTS CAN DAMAGE BOTH UPPER RESPIRATORY TRACT& LUNGS.FIRSTAID:INHALATION-REMOVE TO FRESH AIR.RESTORE BREATHING IF NEEDED.GET MEDICAL ATTN.EYES-FLUSH WITH LOTS OF WATER FOR 15 MINUTES,LIFT LIDS.GET MEDICAL AT TN.SKIN-REMOVE CONTAMINATED CLOTHING.WASH WITH LOTS OF WATER FOR 15 MINUTES.GET MEDICAL ADVIC
E.INGESTION-DO NOT INDUCE VOMITING!!IF CONSCIOUS,GIVE MILK OR WATER,THEN MILK OF MAGNESIA.GET IMMEDIATE MEDICAL ATTN. TARGET ORGANS: NONE GIVEN.

=====
Disclaimer (provided with this information by the compiling agencies): This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever expressly or implied warrants, states, or intends said information to have any application, use or viability by or to any person or persons outside the Department of Defense nor any person or persons contracting with any instrumentality of the United States of America and disclaims all liability for such use. Any person utilizing this instruction who is not a military or civilian employee of the United States of America should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation regardless of similarity to a corresponding Department of Defense or other government situation.