

FISHER SCIENTIFIC -- SULFURIC ACID, A298 -- 6810-00-072-2921

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

Product ID:SULFURIC ACID, A298

MSDS Date:05/12/1995

FSC:6810

NIIN:00-072-2921

MSDS Number: CFMPF

=== Responsible Party ===

Company Name:FISHER SCIENTIFIC

Address:1 REAGENT LANE

City:FAIR LAWN

State:NJ

ZIP:07410

Country:US

Info Phone Num:201-796-7100

Emergency Phone Num:201-796-7100;800-424-9300(CHEMTRE
C)

CAGE:1B464

=== Contractor Identification ===

Company Name:FISHER SCIENTIFIC CO. CHEMICAL MFG DIV

Address:1 REAGENT LANE

Box:City:FAIRLAWN

State:NJ

ZIP:07410-2802

Country:US

Phone:201-796-7100

CAGE:1B464

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

Ingred Name:SULFURIC ACID (SARA 302/313) (CERCLA)

CAS:7664-93-9

RTECS #:WS5600000

Fraction by Wt: 70-100%

OSHA PEL:1 MG/M3

ACGIH TLV:1 MG/M3/3 STEL

EPA Rpt Qty:1000 LBS

DOT Rpt Qty:1000 LBS

Ingred Name:WATER

CAS:7732-18-5

RTECS #:ZC0110000
Fraction by Wt: 0-30%
OSHA PEL:N/K
ACGIH TLV:N/K

Ingred Name:SUP DAT: COOL CONTRS W/FLOODING AMTS OF WATER, APPLY FROM
AS FAR DIST AS POSS. AVOID BRTHG CORR VAPS, KEEP UPWIND.

RTECS #:9999999ZZ

Ingred Name:EFTS OF OVEREXP: SEQUELAE. CORNEAL DMG, BLINDNESS,
SCARRING. GLAUCOMA & CATARACT. INGEST: BURNING PAIN, SOUR (ING 5)

RTECS #:9999999ZZ

Ingred Name:ING 4: TASTE, NAUS, VOMIT, DIARR. DEHYDRATION &
CARBONIZATION OF TISS, ESCHARS. BROWNISH/YELLOWISH STAINS AROUND

D

(ING 6)

RTECS #:9999999ZZ

Ingred Name:ING 5: MOUTH, INTENSE THIRST, DFCLT SWALLOWING, ACIDEMIA,
STOMATITIS, RAPID & WEAK PULSE, SHALLOW BRTHG, SHOCK & (ING 7)

RTECS #:9999999ZZ

Ingred Name:ING 6: POSS CONVLS & DEATH. ALBUMIN, BLOOD & CASTS IN
URINE, ANURIA, ESOPHAGEAL & DELAYED GASTRIC STENOSIS. (ING 8)

RTECS #:9999999ZZ

Ingred Name:ING 7: PERFORATION OF GI TRACT, PERITONITIS. CHRONIC:
INHAL: INFLAMM OF UPPER RESP TRACT, CHRONIC BRONCH & (ING 9)

RTECS #:9999999ZZ

Ingred Name:

e:ING 8: ETCHING OF DENTAL ENAMEL. BRONCH SYMPS, RHINORRHEA,
FREQUENT RESP TRACT INFECTIONS, EMPHYSEMA, STOMATITIS(ING 10)

RTECS #:9999999ZZ

Ingred Name:ING 9: & DIGESTIVE DISTURB. ALKALINE DEPLETION OF BODY;
ACIDOSIS, AGITATION, HESITANT GAIT & GEN WEAK. INCRD (ING 11)

RTECS #:9999999ZZ

Ingred Name:ING 10: RISK OF LARYNGEAL CANCER. REPRO EFTS. SKIN:
DESICCATION & ULCERATION, PURULENT INFLAMM AROUND NAILS. (ING 12)

RTECS #:9999999ZZ

Ingred Name:ING 11: DERM. EYE: LACRIMATION, CONJ

UNCTIVITIS. CONTACT
NEHC FOR MORE SPECIFIC INFORMATION .
RTECS #:9999999ZZ

Inged Name:FIRST AID PROC: SECURELY W/STERILE, DRY, LOOSE-FITTING
DRESSING. TREAT SYMPTOMATICALLY & SUPPORTIVELY. GET MED (ING 14)
RTECS #:9999999ZZ

Inged Name:ING 13: ATTN IMMED. EYE: WASH IMMED W/LGE AMTS OF WATER,
OCCAS LIFTING UPPER & LOWER LIDS, UNTIL NO EVIDENCE OF (ING 15)
RTECS #:9999999ZZ

Inged Name:ING 14: CHEM REMAINS (AT LEAST 15-20 MIN). CONTINUE
IRRIGATING W/NORM SALINE UNTIL PH HAS RET
URNED TO NORM (ING 16)
RTECS #:9999999ZZ

Inged Name:ING 15: (30-60 MIN). COVER W/STERILE BANDAGES. GET MED ATTN
IMMED. INGEST: DO NOT USE GASTRIC LAVAGE/EMESIS. (ING 17)
RTECS #:9999999ZZ

Inged Name:ING 16: GIVE LGE AMTS OF WATER/MILK. REPEAT IF VOMIT
OCCURS. INGESTED CORR SHOULD BE DILUTED APPROX 100 TIMES (ING 18)
RTECS #:9999999ZZ

Inged Name:ING 17: TO RENDER IT HARMLESS TO TISS (DREISBACH &
ROBERTSON; HANDBOOK OF POIS; 12TH ED.). DO NOT GIVE ANYTHING (ING
19)
RTECS #:99
99999ZZ

Inged Name:ING 18: BY MOUTH TO PERS WHO IS UNCON/OTHERWISE UNABLE TO
SWALLOW. IF VOMIT OCCURS, KEEP HEAD LOWER THAN HIPS (ING 20)
RTECS #:9999999ZZ

Inged Name:ING 19: TO HELP PVNT ASPIR. MAINTAIN AIRWAY & RESP. TREAT
SYMPTOMATICALLY & SUPPORTIVELY. GET MED ATTN IMMED. (ING 21)
RTECS #:9999999ZZ

Inged Name:ING 20: ANTIDOTE: TREAT SYMPTOMATICALLY AND SUPPORTIVELY.
RTECS #:9999999ZZ

Inged Name:RESP PROT: FILTER; ANY SUPP-AIR RESP OPERATED IN CONTINUOUS
FLOW MODE. 50 MG/M

3: ANY CHEM CARTRIDGE RESP W/FULL (ING 23)
RTECS #:9999999ZZ

Ingred Name:ING 22: FACEPIECE & ACID GAS CARTRIDGE(S) IN COMBINATION
W/HIGH-EFFICIENCY PARTICULATE FILTER; ANY SCBA W/FULL (ING 24)
RTECS #:9999999ZZ

Ingred Name:ING 23: FACEPIECE; ANY SUPP-AIR RESP W/FULL FACEPIECE;
CONTACT NEHC FOR A COMPLETE LIST OF RESPIRATORS .
RTECS #:9999999ZZ

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

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER.

Routes of Entry: Inhala

tion:YES Skin:YES Ingestion:YES

Reports of Carcinogenicity:NTP:NO IARC:YES OSHA:NO

Health Hazards Acute and Chronic:ACUTE: INHAL: IRRIT. INCRD PULM AIR

FLOW RESIST, SHALLOWER & RAPID BRTHG. RAPID LOSS OF CONSCIOUSNESS,
DMG TO LUNGS. NASAL SECRETIONS, SNEEZING, BURNING/TICKLING COUGH,
RESP DISTRESS, TRACHEOBRONCHITIS, CHEM PNEUMIT, SPASM OF VOCAL
CORDS. BLOODY NASAL SECRETIONS & SPUTUM, HEMATEMESIS GASTRITIS, &
PULM (EFTS OF OVEREXP)

Explanation of Carcinogenicity:SULFU

RIC ACID: IARC MONOGRAPHS, VOLUME

54, PAGE 41, 1992: GROUP 1. ANIMAL: PULMONARY IRRITATION.

Effects of Overexposure:HLTH HAZ: EDEMA. LARYNGEAL, TRACHEOBRONCHIAL &

PULM EDEMA. PULM FIBROSIS, RESIDUAL BRONCH, & PULM EMPHYSEMA. SKIN:
SEV BURNS, NECROSIS, CHARRING, SHOCK & COLLAPSE. SCARRING. EYE:
BURNING/STINGING, LAC RIMATION, BLURRED VISION & CONJ CONGESTION.
DEEP CORNEAL ULCERATION, KERATO-CONJ & PALPEBRAL LESIONS W/SEV (ING
4)

Medical Cond Aggravated by Exposure:NONE SPE
CIFIED BY MANUFACTURER.

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

First Aid:INHAL: REMOVE TO FRESH AIR. PERFORM ARTF RESP. MAINTAIN
AIRWAY, BLOOD PRESS & RESP. KEEP WARM & AT REST. TREAT
SYMPTOMATICALLY & SUPPORTIVELY. GET MED ATTN IMMED. QUALIFIED MED
PERS SHOULD CONSIDER AD MIN OXYGEN. SKIN: REMOVE CONTAM CLTHG
&SHOES. WASH W/SOAP/MILD DETERGENT & LGE AMTS OF WATER UNTIL NO
EVIDENCE OF CHEM REMAINS (AT LEAST 15-20 MIN). IF BURNS OCCUR,
COVER

AFFECTED AREA (ING 13)

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

Extinguishing Media: DRY CHEMICAL OR CARBON DIOXIDE. FOR LARGE FIRES, FLOOD AREA WITH WATER FROM A DISTANCE.

Fire Fighting Procedures: WEAR NIOSH APPRVD SCBA & FULL PROT EQUIP . DO NOT GET WATER INSIDE CONTR. DO NOT GET SOLID STREAM OF WATER ON SPILLED MATL. MOVE CONTR FROM FIRE (SUP DAT)

Unusual Fire/Explosion Hazard: NEGLIG FIRE HAZ. OXIDIZERS DECOMP, ESP WHEN HEATED, TO YIELD OXYGEN/OTHER GASES WHICH WILL INCR BURNING RATE OF COMBUST MATTER. CONT NEHC FOR MORE INFO .

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

Spill Release Procedures: KEEP COMBUSTIBLES AWAY. DO NOT TOUCH. STOP LEAK. USE WATER SPRAY TO REDUCE VAPORS. DO NOT PUT WATER ON LEAK OR SPILL. CLEAN UP UNDER SUPERVISION OF EXPERT. KEEP AWAY. ISOLATE. VENTILATE. CONTACT NEHC FOR MORE SPECIFIC INFORMATION .

Neutralizing Agent: SLAKED LIME, SODIUM BICARBONATE OR CRUSHED LIMESTONE.

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

Handling and Storage Precautions: STORE IN COOL, DRY, WELL-VENTILATED LOCATION. SEPARATE FROM COMBUSTIBLES AND OTHER REACTIVE MATERIALS.

Other Precautions: SEPARATE FROM CARBIDES, CHLORATES, FULMINATES, NITRATES, PICRATES, AND POWDERED METALS (NFPA 49, HAZARDOUS CHEMICALS DATA, 1991). STORE IN A TIGHTLY CLOSED CONTAINER. AVOID DIRECT SUNLIGHT. STORE AWAY FROM INCOMPATIBLE MATERIALS.

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

Respiratory Protection: USE NIOSH APPRVD RESP APPROP FOR EXPOS OF CONCERN . SPECIFIC RESP SELECTED MUST BE BASED ON CONTAM LEVELS FOUND IN WORKPLACE. 25 MG/M3: ANY POWERED AIR-PURIFYING RESP W/ACID GAS CARTRIDGE(S) & HIGH-EFFICIENCY PARTICULATE (ING 22)

Ventilation: PROVIDE LOCAL EXHAUST OR PROCESS ENCLOSURE VENTILATION TO MEET PUBLISHED EXPOSURE LIMITS.

Protective Gloves: IMPERVIOUS GLOVES .

Eye Protection: ANSI APPRVD CHEM WORKERS GOGG

&(SUP DAT)

Other Protective Equipment:EMERGENCY EYEWASH AND DELUGE SHOWER MEETING
ANSI DESIGN CRITERIA . WEAR APPROPRIATE PROTECTIVE CLOTHING.

Work Hygienic Practices:NONE SPECIFIED BY MANUFACTURER.

Supplemental Safety and Health

EYE PROT:FULL LENGTH FSHLD. FIRE FIGHT PROC:AREA IF W/OUT RISK. APPLY
COOLING WATER TO SIDES OF CONTRS EXPOSED TO FLAMES UNTIL WELL AFTER
FIRE IS OUT. STAY AWAY FROM ENDS OF TANKS (1993 EMER RESPONSE
GUIDEBOOK. RSPA P 5800.6. GUIDE PG 39).USE AGENT SUIT

ABLE FOR TYPE

OF FIRE; USE FLOODING AMTS OF WATER AS FOG. (ING 3)

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

Boiling Pt:B.P. Text:626F,330C

Melt/Freeze Pt:M.P/F.P Text:50.0F,10.0C

Vapor Pres: