

FISHER SCIENTIFIC -- NITRIC ACID, A198C -- 6810-00-953-1356

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

Product ID:NITRIC ACID, A198C

MSDS Date:10/13/1994

FSC:6810

NIIN:00-953-1356

MSDS Number: CFQWR

=== Responsible Party ===

Company Name:FISHER SCIENTIFIC

Address:1 REAGENT LANE

City:FAIRLAWN

State:NJ

ZIP:07410

Country:US

Info Phone Num:201-796-7100

Emergency Phone Num:201-796-7100

CAGE:1B464

=== Contract

or 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:NITRIC ACID (SARA 302/313) (CERCLA). LD50:(ORAL) 50-500
MG/KG.

CAS:7697-37-2

RTECS #:QU5775000

Fraction by Wt: 70%

OSHA PEL:2 PPM

ACGIH TLV:2 PPM;4 STEL

EPA Rpt Qty:1000 LBS

DOT Rpt Qty:1000 LBS

Ingred Name:WATER

CAS:7732-18-5

RTEC

S #:ZC0110000
Fraction by Wt: 30%
OSHA PEL:N/K
ACGIH TLV:N/K

Inged Name:FIRE FIGHT PROC:WELL AFTER FIRE IS OUT. STAY AWAY FROM ENDS
OF TANKS. FOR MASSIVE FIRE IN CARGO AREA, USE (ING 4)
RTECS #:9999999ZZ

Inged Name:ING 3:UNMANNED HOSE HOLDER/MONITOR NOZZ; IF THIS IS IMPOSS,
W/DRAW FROM AREA & LET FIRE BURN. USE FLOODING AMTS (ING 5)
RTECS #:9999999ZZ

Inged Name:ING 4:OF WATER AS FOG. COOL CNTNRS W/FLOODING AMTS OF
WATER, APPLY FROM AS FAR DIST AS POSS. AVOID BRTHG CORR (ING 6
)
RTECS #:9999999ZZ

Inged Name:ING 5:VAPORS. KEEP UPWIND. CONSIDER EVACUATION OF DOWNWIND
AREA IF MATERIAL IS LEAKING.
RTECS #:9999999ZZ

Inged Name:EFTS OF OVEREXP:REGENERATES RAPIDLY & EYE RECOVERS
COMPLETELY. IN SEV CASES, EXTENT OF INJURY MAY NOT BE FULLY (ING 8)
RTECS #:9999999ZZ

Inged Name:ING 7:APPARENT FOR SEVERAL WKS. IN WORST CASES, EYE MAY BE
TOTALLY DESTROYED. INGEST:MAY CAUSE CIRCUMORAL BURNS (ING 9)
RTECS #:9999999ZZ

Inged Name:ING 8:W/YELLOW DISCOLORATION & CORR
OF MUC MEMBS OF MOUTH,
THROAT & ESOPHAGUS. MARKED THIRST, EPIGASTRIC PAIN, (ING 10)
RTECS #:9999999ZZ

Inged Name:ING 9:NAUS, VOMIT & DIARR MAY OCCUR. VOMITUS MAY CONTAIN
FRESH/DARK PRECIPITATED BLOOD & LG SHREDS OF MUCOSA. (ING 11)
RTECS #:9999999ZZ

Inged Name:ING 10:SHOCK & CLAMMY SKIN MAY OCCUR. CIRCULATORY COLLAPSE
MAY ENSUE & IF UNCORRECTED, LEAD TO RENAL FAILURE. (ING 12)
RTECS #:9999999ZZ

Inged Name:ING 11:DEATH MAY RSLT W/IN SHORT TIME FROM ASPHY,
CIRCULATORY COLLAP

SE/ASPIR OF EVEN MIN AMTS. LATER DEATH MAY (ING
13)

RTECS #:9999999ZZ

Inged Name:ING 12:BE DUE TO PERITONITIS, SEV NEPHRITIS/PNEUM. COMA &
CONVLS SOMETIMES OCCUR TERMINALLY. CHRONIC:INHAL:RPTD/(ING 14)

RTECS #:9999999ZZ

Inged Name:ING 13:PRLNG EXPOS MAY CAUSE EROSION OF TEETH, INFLAMMATORY
& ULCERATIVE CHANGES IN MOUTH & POSSIBLY JAW (ING 15)

RTECS #:9999999ZZ

Inged Name:ING 14:NECROSIS. GI DISTURBS ARE ALSO POSS. SKIN:RPTD/PRLNG
CONT MAY RSLT IN DERM/EFTS SIMILAR TO ACUTE.

EYE: (ING 16)

RTECS #:9999999ZZ

Inged Name:ING 15:RPTD/PRLNG EXPOS MAY CAUSE CONJ/EFTS AS IN ACUTE.
INGEST:RPTD INGEST MAY RSLT IN INFLAMMATORY & (ING 17)

RTECS #:9999999ZZ

Inged Name:ING 16:ULCERATIVE CHANGES IN MUC MEMBS OF MOUTH & OTHER
EFTS AS IN ACUTE INGEST. REPRO EFTS HAVE BEEN REPORTED (ING 18)

RTECS #:9999999ZZ

Inged Name:ING 17:IN ANIMALS. FOR DETAILED INFORMATION CONTACT NEHC .

RTECS #:9999999ZZ

Inged Name:FIRST AID PROC:AMTS OF WATER, OCCAS LIFTING UPPER & LOWER

LIDS, UNTIL NO CHEM REMAINS (@ LST 15-20 MINS). (ING 20)

RTECS #:9999999ZZ

Inged Name:ING 19:CONTINUE IRRIGATING W/NORM SALINE UNTIL PH HAS
RETURNED TO NORM (30-60 MINS). COVER W/STERILE BANDAGES. (ING 21)

RTECS #:9999999ZZ

Inged Name:ING 20:GET MD. INGEST:DO NOT USE GASTRIC LAVAGE/EMESIS.
GIVE LG AMTS OF WATER/MILK. REPEAT IF VOMIT OCCURS. (ING 22)

RTECS #:9999999ZZ

Inged Name:ING 21:INGESTED CORR SHOULD BE DILUTED APPROX 100X TO
RENDER IT HARMLESS TO TISS. DO NOT GIVE ANYTHIN

G BY MOUTH (ING 23)
RTECS #:9999999ZZ

Ingred Name:ING 22:TO PERS UNCON/UNABLE TO SWALLOW. IF VOMIT OCCURS,
KEEP HEAD LOWER THAN HIPS TO PVNT ASPIR. MAINTAIN (ING 24)
RTECS #:9999999ZZ

Ingred Name:ING 23:AIRWAY & RESP. GET MD IMMED. ANTIDOTE:NO SPECIFIC
ANTIDOTE. TREAT SYMPTOMATICALLY & SUPPORTIVELY.
RTECS #:9999999ZZ

Ingred Name:SPILL PROC:KEEP UNNEC PEOPLE AWAY. VENT CLSD SPACES BEFORE
ENTERING. RQ:1000 LBS. FOR MORE INFO CONTACT NEHC .
RTECS #:9999999ZZ

===== H
Hazards Identification =====

LD50 LC50 Mixture:SEE INGREDIENT 1.
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:CORR/HIGHLY TOX. ACUTE:INHAL:100 PPM
IDLH. MAY CAUSE SEV RESP IRRIT W/COUGH, CHOKING & POSSIBLY
YELLOWISH BURNS OF MUC MEMBS. OTHER SYMPS MAY INCL DIZZ, HDCH, NAUS
& WEAK. PULM EDEMA MAY BE IMMED, BUT MORE LIKELY TO OCCUR AFTER
LATENT PERIOD OF 5-72 HRS. IN
SEV EXPOS, DEATH DUE TO ANOXIA MAY
OCCUR W/IN(EFTS OF OVEREXP)

Explanation of Carcinogenicity:NOT RELEVANT
Effects of Overexposure:HLTH HAZ:A FEW HRS AFTER ONSET OF SYMPS OF PULM
EDEMA/FOLLOWING RELAPSE. SKIN CONT:MAY CAUSE SEV PAIN, BURNS &
POSSIBLY YELLOWISH STAINS. DILUTE SOLNS MAY PRDCE MILD IRRIT &
HARDEN EPIDERMIS W/OUT DES TROYING IT. EYE CONT:MAY CAUSE PAIN &
LACRIM, PHOTOPHOBIA & BURNS, POSSIBLY SEV. IN MILD BURNS,
EPITHELIUM (ING 7)

Medical Cond Aggravated by Ex
posure:PERSONS W/IMPAIRED PULMONARY
FUNCTION, PRE-EXISTING EYE & SKIN DISORDERS ARE AT INCREASED RISK
FROM EXPOSURE.

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

First Aid:INHAL:REMOVE TO FRESH AIR IMMED. PERFORM ARTF RESP IF NEC.
MAINTAIN AIRWAY, BLOOD PRESS & RESP. KEEP WARM & AT REST. GET MD
IMMED. QUALIFIED MED PERS SHOULD CONSIDER ADMIN OXYG. SKIN:REMOVE
CONTAM CLT HG & SHOES IMMED. WASH W/SOAP & WATER UNTIL NO CHEM
REMAINS(@ LST 15-20 MINS)

. IF BURNS OCCUR, COVER AFFECTED AREA
SECURELY W/STERILE, DRY, LOOSE-FITTING DRESSING. GET MD. EYES:WASH
IMMED W/LG(ING 19)

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

Extinguishing Media:WATER, DRY CHEMICAL OR SODA ASH. FOR LARGER FIRES,
FLOOD AREA WITH WATER FROM A DISTANCE.

Fire Fighting Procedures:USE NIOSH APPRVD SCBA & FULL PROT EQUIP. MOVE
CNTNR FROM FIRE AREA IF CAN W/OUT RISK. APPLY COOLING WATER TO
SIDES OF CNTNRS EXPOS TO FLAMES UNTIL (IN

G 3)

Unusual Fire/Explosion Hazard:NEGLIG FIRE HAZ WHEN EXPOS TO HEAT/FLAME.
OXIDIZERS DECOMP WHEN HEATED TO YIELD OXYG/OTHER GASES WHICH WILL
INCR BURNING RATE OF COMBUST MATTER. CONT W/(SUPDAT)

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

Spill Release Procedures:KEEP COMBUSTS AWAY FROM SPILL. DO NOT TOUCH
SPILLED MATL. STOP LEAK IF W/OUT RISK. USE WATER SPRAY TO REDUCE
VAPS. DO NOT GET WATER INSIDE CNTNR. SM SPILLS:FLUSH AREA
W/FLOODING AMTS OF WAT

ER. LG SPIL LS:DIKE FAR AHEAD OF SPILL FOR
LATER DISP.(ING 25)

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

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

Handling and Storage Precautions:OBSERVE ALL FED, STATE & LOC REGS WHEN
STORING SUBSTANCE. CONSULT NFPA PUBLICATION 43A, STOR OF LIQ &
SOLID OXIDIZING MATLS, FOR STOR REQUIREMENTS.

Other Precautions:FLAMM, POIS GASES MAY ACCUM IN TANKS & HOPPER CARS.
RUNOFF TO

SEWER MAY CREATE FIRE/EXPLO HAZ. PROT AGAINST PHYSICAL
DMG SEPARATE FROM METALLIC PWDRS, CARBIDES, HYDROGEN SULFIDE,
TURPENTINE, ORG ACIDS & ALL COMBUST, ORG/OTHER (SUPP DATA)

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

Respiratory Protection:RESPTS MUST BE NIOSH APPRVD: 50 PPM-ANY
SUPPLIED-AIR RESP OPERATED IN CONTINUOUS-FLOW MODE; 100 PPM-ANY
SCBA W/FULL FACEPIECE, ANY AIR-PURIFYING RESP (GAS MASK)
W/CHIN-STYLE, FRONT-OR BACK-MOUNTED CANI STER PROV

IDENTIFICATION

AGAINST (SUPP DATA)

Ventilation:PROCESS ENCLOSURE RECOMMENDED TO MEET PELS.

Protective Gloves:IMPERVIOUS GLOVES .

Eye Protection:ANSI APPRVD CHEM WORKERS GOGGS &(SUPDAT)

Other Protective Equipment:ANSI APPRVD EYE WASH FOUNTAIN & DELUGE
SHOWER . APPROP PROT (IMPERVIOUS) CLTHG & EQUIP TO PREVENT SKIN
CONTACT.

Work Hygienic Practices:NONE SPECIFIED BY MANUFACTURER.

Supplemental Safety and Health

EXPLO HAZ:EASILY OXIDIZABLE, ORG/OTHER COMBUST MATLS MAY RSLT IN IGNIT,
VIOLE

NT COMBUST/EXPLO. OTHER PREC:READILY OXIDIZABLE MATLS. PROVIDE
GOOD VENT & AVOID DIRECT SUNLIGHT. STORE AWAY FROM INCOMPAT
SUBSTANCES. RESP PROT:NITRIC ACID. FOR MORE SPECIFIC INFO CONT NEHC
. EYE PROT:FULL LENGTH FACESHIELD .

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

Boiling Pt:B.P. Text:481F,249C

Melt/Freeze Pt:M.P/F.P Text:-44F,-42C

Vapor Pres:47.9 @ 20C

Vapor Density:3.2

Spec Gravity:1.5027

Solubility in Water:VERY SOLUBLE

Appearance and Odor:COLORLE

SS TO PALE YELLOW LIQUID W/SUFFOCATING ODOR.

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

ACETIC ACID, ACROLEIN, ALCOHOLS, BASES. FOR A COMPLETE LISTING OF
MATERIALS TO AVOID CONTACT NEHC .

Stability Condition to Avoid:MAY IGNITE OTHER COMBUST MATLS (WOOD,
PAPER, OIL, ETC). REACTS VIOLENTLY W/WATER & FUELS. REACTS
EXOTHERMICALLY W/WATER.

Hazardous Decomposition Products:THERMAL DECOMPOSITION PRODUCTS MAY
INCLUDE

TOXIC OXIDES OF NITROGEN.

===== Disposal Considerations =====

Waste Disposal Methods:OBSERVE ALL FEDERAL, STATE & LOCAL REGULATIONS
WHEN DISPOSING OF THIS SUBSTANCE. DISPOSAL MUST BE I/A/W STDS
APPLIC TO GENERATORS OF HAZ WASTE, 40 CFR 262, EPA HAZ WASTE
NUMBER:D002. CERCLA SECTION 10 3 REPORTABLE QTY:100 LBS.

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