

FISHER SCIENTIFIC -- NITRIC ACID, A200 -- 6810-00-281-0439

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

Product ID:NITRIC ACID, A200

MSDS Date:10/13/1994

FSC:6810

NIIN:00-281-0439

MSDS Number: CDWZV

=== 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(CHEMTREC)

CA

GE: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: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:WAT

ER  
CAS:7732-18-5  
RTECS #:ZC0110000  
Fraction by Wt: 30%  
OSHA PEL:N/K  
ACGIH TLV:N/K

Ingrid Name:SUPDAT:OF TANKS. FOR MASSIVE FIRE IN CARGO AREA, USE  
UNMANNED HOSE HOLDER/MONITOR NOZZS; IF THIS IS IMPOSS, W/ (ING 4)  
RTECS #:9999999ZZ

Ingrid Name:ING 3:DRAW FROM AREA & LET FIRE BURN. USE FLOODING AMTS OF  
WATER AS FOG. COOL CNTNRS W/FLOODING AMTS OF WATER, (ING 5)  
RTECS #:9999999ZZ

Ingrid Name:ING 4:APPLY FROM AS FAR A DIST AS POSS. AVOID BRTHG CORR  
VAPS, KEEP UPWIND. CONSIDER EVACUA  
TION OF DOWNWIND AREA (ING 6)  
RTECS #:9999999ZZ

Ingrid Name:ING 5:IF MATERIAL IS LEAKING.  
RTECS #:9999999ZZ

Ingrid Name:EFTS OF OVEREXP:BECOME DEEPLY VASCULARIZED & OPAQUE RSLTG  
IN BLINDNESS. YELLOW COLOR TO EYE. INGEST:CORR/TOX. (ING 8)  
RTECS #:9999999ZZ

Ingrid Name:ING 7:CIRCUMORAL BURNS W/YELLOW DISCOLORATION & CORR OF MUC  
MEMBS OF MOUTH, THROAT & ESOPHAGUS. MAY BE IMMED PAIN(ING 9)  
RTECS #:9999999ZZ

Ingrid Name:ING 8:& DFCLTY/INABILITY TO SWALLOW/SPEAK. EPIGLOTTAL EDEMA  
MAY R  
SLT IN RESP DISTRESS, ASPHY, MARKED THIRST, (ING 10)  
RTECS #:9999999ZZ

Ingrid Name:ING 9:EPIGASTRIC PAIN, NAUS, VOMIT & DIARR. VOMITUS MAY  
CNTN FRESH/DARK PRECIP BLOOD & LG SHREDS OF MUCOSA. (ING 11)  
RTECS #:9999999ZZ

Ingrid Name:ING 10:SHOCK W/MARKED HYPOTENSION, WEAK, RAPID PULSE,  
SHALLOW RESP & CLAMMY SKIN. CIRCULATORY COLLAPSE MAY LEAD (ING 12)  
RTECS #:9999999ZZ

Ingrid Name:ING 11:TO RENAL FAILURE, GASTRIC & ESOPHAGEAL PERFORATION &  
SUBSEQUENT PERITONITIS ACCOMPANIED BY FEVER

& ABDOM (ING 13)  
RTECS #:9999999ZZ

Inged Name:ING 12:RIGIDITY, ESOPHAGEAL, GASTRIC & PYLORIC STRICTURE.  
DEATH MAY RSLT FROM ASPHY, CIRCULATORY COLLAPSE/ASPIR.(ING 14)  
RTECS #:9999999ZZ

Inged Name:ING 13:LATER DEATH MAY BE DUE TO PERITONITIS, SEV  
NEPHRITIS/PNEUM, COMA & CONVLS. CHRONIC:INHAL:EROSION OF (ING 15)  
RTECS #:9999999ZZ

Inged Name:ING 14:TEETH, INFLAMM & ULCERATIVE CHANGES IN MOUTH & POSS  
JAW NECROSIS, BRONCH IRRIT W/COUGH & FREQUENT ATTACKS(ING 16)  
RTECS #:9999999ZZ

I  
ngred Name:ING 15:OF BRONCH PNEUM, GI DISTURBS. SKIN:DERM/EFTS AS IN  
ACUTE. EYE:CONJ/EFTS AS IN ACUTE. INGEST:INFLAMM & (ING 17)  
RTECS #:9999999ZZ

Inged Name:ING 16:ULCERATIVE CHANGES IN MOUTH & OTHER EFTS AS IN  
ACUTE. ANIMALS:REPRO EFTS. FOR MORE INFO CONTACT NEHC .  
RTECS #:9999999ZZ

Inged Name:SPILL PROC:LGR SPILLS:DIKE FAR AHEAD OF SPILL FOR LATER  
DISP. KEEP UNNEC PEOPLE AWAY. ISOLATE HAZ AREA & DENY (ING 19)  
RTECS #:9999999ZZ

Inged Name:ING 18:ENTRY. VENTILATE CLOSED SPACES  
BEFORE ENTERING. FOR  
MORE SPECIFIC INFORMATION CONTACT NEHC .  
RTECS #:9999999ZZ

Inged Name:RESP PROT:SUPPLIED-AIR RESP W/FULL FACEPIECE; ANY  
AIR-PURIFYING, FULL-FACEPIECE RESP (GAS MASK) W/CHIN-STYLE, (ING  
21)  
RTECS #:9999999ZZ

Inged Name:ING 20:FRONT- OR BACK-MOUNTED CANISTER PROVIDING PROT  
AGAINST NITRIC ACID (ONLY NONOXIDIZABLE SORBENTS ARE (ING 22)  
RTECS #:9999999ZZ

Inged Name:ING 21:ALLOWED (NOT CHARCOAL)). ANY CHEM CARTRIDGE RESP  
W/FULL FACEPIECE & CARTRIDGE(S).

ESCAPE-ANY AIR- (ING 23)  
RTECS #:9999999ZZ

Ingred Name:ING 22:PURIFYING, FULL-FACEPIECE RESP (GAS MASK)  
W/CHIN-STYLE, FRONT- OR BACK-MOUNTED CANISTER; ANY APPROP (ING 24)  
RTECS #:9999999ZZ

Ingred Name:ING 23:ESCAPE-TYPE, SELF-CONTAINED BREATHING APPARATUS. FOR  
MORE SPECIFIC INFORMATION CONTACT NEHC .  
RTECS #:9999999ZZ

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

LD50 LC50 Mixture:SEE INGREDIENT 1.  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES  
Report  
s of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:ACUTE:INHAL:CORR/HIGHLY TOX. SEV RESP  
IRRIT W/COUGH, CHOKING & POSS YELLOWISH BURNS OF MUC MEMBS, DIZZ,  
HDCH, NAUS & WEAK. PULM EDEMA; TIGHTNESS IN CHEST, DYSP, DIZZ,  
FROTHY SPUTUM, CYANOSIS, HYPOTENS ION, WEAK, RAPID PULSE, MOIST  
RALES & HEMOCONC. DEATH DUE TO ANOXIA AFTER ONSET OF PULM EDEMA.  
SKIN: (EFTS OF OVEREXP)

Explanation of Carcinogenicity:NOT RELEVANT

Effects of Overexposure:HLTH HAZ:COR

R. SEV PAIN, BURNS & POSS YELLOWISH  
STAINS. BURNS MAY BE DEEP W/SHARP EDGES & HEAL SLOWLY W/SCAR TISS  
FORM. DILUTE SOLNS:MILD IRRIT & HARDEN EPIDERMIS W/OUT DESTROYING  
IT. RATS:ELEVATED ME THEMOGLOBIN & BLOOD NITRATE LEVELS. EYE:CORR.  
PAIN & LACRIM, PHOTOPHOBIA & BURNS, POSS SEV. WHOLE CORNEA MAY (ING  
7)

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

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

First Aid:INGEST:CALL MD IMMED . INHAL:REMOVE TO FRESH AIR. SUPPORT  
BREATHING (GIVE O\*2/ARTF RESP) . EYES:IMMEDIATELY FLUSH W/POTABLE  
WATER FOR A MINIMUM OF 15 MINUTES, SEEK ASSISTANCE FROM MD (FP N ).  
SKIN:FLUSH W/COPIOUS AMOUNTS OF WATER. CALL MD . ANTIDOTE:NO  
SPECIFIC ANTIDOTE. TREAT SYMPTOMATICALLY & SUPPORTIVELY. FOR MORE  
SPECIFIC INFO REGARDING FIRST AID TREATMENT CONT NEHC .

===== Fire Fighting Measur

es =====

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

Fire Fighting Procedures:USE NIOSH APPRVD SCBA & FULL PROT EQUIP . MOVE CNTNR FROM FIRE AREA IF YOU CAN DO IT W/OUT RISK. APPLY COOLING WATER TO SIDES OF CNTNRS THAT ARE (SUPDAT)

Unusual Fire/Explosion Hazard:NEGLIG FIRE HAZ WHEN EXPOS TO HEAT/FLAME. OXIDIZER; OXIDIZERS DECOMPOSE, ESP WHEN HEATED, TO YIELD OXYG/OTHER GASES WHICH WILL INCR BURN ING RATE OF (SUPP DATA)

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

Spill Release Procedures:KEEP COMBUSTS (WOOD, PAPER, OIL, ETC) AWAY FROM SPILLED MATL. DO NOT TOUCH SPILLED MATL. STOP LEAK IF YOU CAN DO IT W/OUT RISK. USE WATER SPRAY TO REDUCE VAPS. DO NOT GET WATER INSIDE CNTNR. SM SPILLS :FLUSH AREA W/FLOODING AMTS OF WATER. FOR (ING 18)

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

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

Handling and Storage Precautions:OBSERVE ALL FED, STATE & LOC REGS WHEN STORING SUBSTANCE. FOR ASSISTANCE, CONT THE DISTRICT DIRECTOR OF THE EPA. STORE AWAY FROM INCOMPAT SUBSTANCES.

Other Precautions:PROT AGAINST PHYSICAL DMG. SEPARATE FROM METALLIC POWDERS, CARBIDES, HYDROGEN SULFIDE, TURPENTINE, ORG ACIDS & ALL COMBUST, ORG/OTHER READILY OXIDIZABLE MATLS. PROVIDE GOOD VENT & AVOID DIRECT SUNLIGH T. FLAMM, POIS GASES MAY ACCUM (SUPDAT)

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

Respiratory Protection:SPECIFIC RESP SELECTED MUST BE BASED ON CONTAM LEVELS FOUND IN WORK PLACE, MUST NOT EXCEED WORKING LIMS OF RESP & BE NIOSH APPRVD: 50 PPM-ANY SUPPLIED-AIR OPERATED IN CONTINUOUS FLOW-MODE. 100 PPM-ANY SCBA W/FULL FACEPIECE; ANY (ING 20)

Ventilation:PROCESS ENCLOSURE RECOMMENDED TO MEET PELS.

Protective Gloves:IMPERVIOUS GLOVES .

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

Other Prote

Protective Equipment:ANSI APPROVED EYE WASH FOUNTAIN & DELUGE  
SHOWER . APPROPRIATE PROTECTIVE (IMPERVIOUS) CLOTHING & EQUIPMENT.  
Work Hygienic Practices:NONE SPECIFIED BY MANUFACTURER.  
Supplemental Safety and Health  
EXPLO HAZ:COMBUST MATTER. CONT W/EASILY OXIDIZABLE, ORG/OTHER COMBUST  
MATLS MAY RSLT IN IGNIT, VIOLENT COMBUST/EXPLO. OTHER PREC:IN TANKS  
& HOPPER CARS. RUNOFF TO SEWER MAY CREATE FIRE/EXPLO HAZ. EYE  
PROT:FULL LGTH FSHLD . FIRE FIGHTPROC:EXPOS TO FLAMES UNTIL WELL  
AFT  
ER FIRE IS OUT. STAY AWAY FROM ENDS (ING 3)

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

Boiling Pt:B.P. Text:181F,83C  
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:COLORLESS TO PALE YELLOW LIQUID W/SUFFOCATING ODOR.

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

Stability Indicator/Materials to Avoid:YES  
ACETIC ACID, BASES, METALS, ORGANIC MAT  
ERIALS, PLASTICS. FOR A COMPLETE  
LISTING OF MATLS TO AVOID CONTACT NEHC .  
Stability Condition to Avoid:MAY IGNITE OTHER COMBUSTIBLE MATERIALS  
(WOOD, PAPER, OIL, ETC). REACTS VIOLENTLY W/WATER & FUELS.  
Hazardous Decomposition Products:THERMAL DECOMPOSITION PRODUCTS MAY  
INCLUDE TOXIC OXIDES OF NITROGEN.

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

Waste Disposal Methods:OBSERVE ALL FED, STATE & LOC REGS WHEN DISP OF  
SUBSTANCE. FOR ASSISTANCE, CONT THE DISTR  
ICT DIRECTOR OF THE EPA.  
DISPOSAL MUST BE I/A/W STANDARDS APPLICABLE TO GENERATORS OF  
HAZARDOUS WASTE, 40 CFR 26 2. EPA HAZARDOUS WASTE NUMBER D002.  
RQ:100 LBS.

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