

FISHER SCIENTIFIC CHEMICAL -- FORMALDEHYDE SOLUTION, 37% (10-15% METHANOL), F79 --
6810-01-168-3219

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

Product ID: FORMALDEHYDE SOLUTION, 37% (10-15% METHANOL), F79

MSDS Date: 02/18/1995

FSC: 6810

NIIN: 01-168-3219

MSDS Number: CDXCG

=== Responsible Party ===

Company Name: FISHER SCIENTIFIC CHEMICAL

Address: 1 REAGENT LANE

City: FAIR LAWN

State: NJ

ZIP: 07410

Country: US

Inf

o Phone Num: 201-796-7100

Emergency Phone Num: 800-424-9300 (CHEMTREC)

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: FORMALDEHYDE (SARA 302/313) (CERCLA) LD50 (ORAL RAT): 100
MG/KG

CAS: 50-00-0

RTECS #: LP8925000

Fraction by Wt: 37%

OSHA PEL: SEE 1910.1048

ACG

IH TLV:C 0.3 PPM, A2
EPA Rpt Qty:100 LBS
DOT Rpt Qty:100 LBS

Ingred Name:METHANOL (SARA 313) (CERCLA) LD50 (ORAL RAT): 5628 MG/KG
CAS:67-56-1
RTECS #:PC1400000
Fraction by Wt: 10-15%
OSHA PEL:200 PPM, S
ACGIH TLV:200PPM/250STEL, S
EPA Rpt Qty:5000 LBS
DOT Rpt Qty:5000 LBS

Ingred Name:WATER
CAS:7732-18-5
RTECS #:ZC0110000
Fraction by Wt: 47-52%
OSHA PEL:N/K
ACGIH TLV:N/K

Ingred Name:SUP DAT: BURN. WITHDRAW IMMED IN CASE OF RISING SOUND FROM
VENTING SFTY DEVICE/ANY DISCOLORATION OF TANK D
UE TO (ING 5)
RTECS #:9999999ZZ

Ingred Name:ING 4: FIRE. ISOLATE FOR 1/2 MILE IN ALL DIRECTIONS IF
TANK, RAIL/TANK TRUCK IS INVOLVED IN FIRE. EXTING ONLY IF (ING 6)
RTECS #:9999999ZZ

Ingred Name:ING 5: FLOW CAN BE STOPPED; USE FLOODING AMTS OF WATER AS
FOG, SOLID STREAMS MAY BE INEFFECTIVE. COOL CONTRS W/ (ING 7)
RTECS #:9999999ZZ

Ingred Name:ING 6: FLOODING AMTS OF WATER, APPLY FROM AS FAR DIST AS
POSS. AVOID BRTHG VAPS, KEEP UPWIND.
RTECS #:9999999ZZ

Ingred Name:EFTS OF OVEREXP
: DISCOLORATION, ROUGHNESS, HARDNESS, ANESTH
& FIRST DEGREE BURNS. DERM, ECZEMATOUS, VESICULAR (ING 9)
RTECS #:9999999ZZ

Ingred Name:ING 8: RXN, URTICARIA. ING 2: IRRIT, METABOLIC ACIDOSIS,
EFTS ON EYES & CNS. EYE: ING 1: IRRIT, REDNESS, ITCH, (ING 10)
RTECS #:9999999ZZ

Ingred Name:ING 9: PAIN, BLURRED VISION, LACRIMATION, OCULAR DMG, PERM
CORNEAL OPACIFICATION, LOSS OF VISION. ING 2: IRRIT, (ING 11)
RTECS #:9999999ZZ

Ingred Name:ING 10: INFLAMM OF CONJUNCTIVA, EPITHELIAL DEFECTS

ON

CORNEA, CORNEAL OPACITY & CONJ REDNESS. INGEST: ING 1: (ING 12)
RTECS #:9999999ZZ

Ingred Name:ING 11: BURNING, NAUS, VOMIT, DIARR, ABDOM PAIN, HDCH,
CONVLS, UNCON, COMA, DEATH, SHOCK, CIRCULATORY/RESP (ING 13)
RTECS #:9999999ZZ

Ingred Name:ING 12: FAILURE, REPRO EFTS. ING 2: INEBRIATION, DROW,
HDCH, WEAK, DIZZ, NAUS, VOMIT, VIOLENT PAIN, METABOLIC (ING 14)
RTECS #:9999999ZZ

Ingred Name:ING 13: ACIDOSIS, CARD DEPRESS, EDEMA, UNCON, COMA, PERM
BLINDNESS. LIVER, KIDNEY, HEART,
STOM, INTESTINAL, (ING 15)
RTECS #:9999999ZZ

Ingred Name:ING 14: PANCREATIC DMG. DEATH. CHRONIC: INHAL: ING 1: HDCH,
RHINITIS, NAUS, DROW, RESP IMPAIRMENT, KIDNEY (ING 16)
RTECS #:9999999ZZ

Ingred Name:ING 15: INJURY, PULM SENSIT, SLEEP DISORDERS, IRRITABILITY,
ALTERED SENSE OF BALANCE, MEMORY DEFICITS, LOSS OF (ING 17)
RTECS #:9999999ZZ

Ingred Name:ING 16: CONC, MOOD ALTERATIONS, MENSTRUAL DISORDERS,
STERILITY. ING 2: HDCH, DIMINUTION OF VISION, ENLARGEMENT (ING 18)
RTECS #:9999
999ZZ

Ingred Name:ING 17: OF LIVER, REPRO EFTS. SKIN: ING 1: BURNS, NUMBNESS,
ITCH RASH, FINGERNAIL DMG, HARDENING & TANNING OF (ING 19)
RTECS #:9999999ZZ

Ingred Name:ING 18: SKIN, SENSIT, SEV LIVER DMG. ING 2: DEFAT,
ERYTHEMA, SCALING, ECZEMATOID DERM, METABOLIC ACIDOSIS. (ING 20)
RTECS #:9999999ZZ

Ingred Name:ING 19: EYE: ING 1/2: CONJ. INGEST: ING 1: IRRIT, VOMIT,
DIZZ, BURNING, DECR IN BODY TEMP, ITCH RASH. ING 2: (ING 21)
RTECS #:9999999ZZ

Ingred Name:ING 20: VISUAL IMPAIRME

NT, BLINDNESS, REPRO EFTS. CONTACT
NEHC FOR MORE SPECIFIC INFO ON HLTH HAZS .
RTECS #:9999999ZZ

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

LD50 LC50 Mixture:SEE INGREDIENTS.
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES
Health Hazards Acute and Chronic:ACUTE: INHAL: ING 1: IRRIT, DFCLTY
BRTHG, BURNING SENSATION, COUGH, TISS DMG, RESP TRACT INJURY,
PNEUMIT, PULM EDEMA. SNEEZING, WHEEZING,
PHARYNGITIS, TRACHEITIS,
CHEST CONSTRICTION, BRONCH, HDCH, DYS PHAGIA, EXCESS THIRST, WEAK,
PALPITATIONS, NAUS, VOMIT. DEATH. LARYNGEAL EDEMA, ASTHMATIC
BRONCH, (EFTS OF OVEREXP)
Explanation of Carcinogenicity:FORMALDEHYDE:OSHA REG, 29 CFR 1910.1048;
IARC SUPP 7, PG 211, 1987: GR 2A. NTP 7TH ANN RPT, 1994: ANTIC TO
BE (SUP DAT)
Effects of Overexposure:HLTH HAZ: TRACHEOBRONCHITIS, URTICARIA. ING 2:
IRRIT, COUGH, OPPRESSION IN CHEST, TRACHEITIS, BRONCH, TINNITUS,
UNSTEA
DY GAIT, TWITCHING, COLIC, CONSTIP, NYSTAGMUS, BLEPHAROSPASM,
PARESTHESIAS, NUMBNE SS & SHOOTING PAIN IN HANDS &
FOREARMS.METABOLIC ACIDOSIS, EFTS ON EYES & CNS. SKIN: ING 1:
SMARTING, WHITE (ING 8)
Medical Cond Aggravated by Exposure:ASTHMA, CHRONIC SKIN DISEASE, LUNG
DISEASE, KIDNEY AND EYE DISORDERS.

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

First Aid:EYES: FLUSH W/POTABLE WATER FOR AT LEAST 15 MIN. SEE MD .
SKIN: FLUSH W/COPIOUS AMTS OF WATER.
SEE MD . INHAL: REMOVE TO
FRESH AIR. SUPPORT BRTHG (GIVE OXYGEN/ARTF RESP) . INGEST: DI LUTE,
INACTIVATE/ABSORB INGESTED FORMALDEHYDE BY GIVING MILK, ACTIVATED
CHARCOAL/TAP WATER. DO NOT USE GASTRIC LAVAGE/EMESIS. GET MED ATTN
IMMED. FOR MORE SPECIFIC INFO CONT NEHC .

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

Flash Point Method:CC
Flash Point:140F,60C
Lower Limits:7%
Upper Limits:73%
Extinguishing Media:DRY CHEMICAL, CARBON DIOXIDE, WATER SPRAY OR

REGULAR FOAM. FOR LARGER FIRES, USE WATER SPRAY, FOG OR REGULAR FOAM.

Fire Fighting Procedures:WEAR NIOSH APPRVD SCBA & FULL PROT EQUIP .

MOVE CONTR FROM FIRE AREA IF W/OUT RISK. APPLY COOLING WATER TO SIDES OF CONTRS EXPOSED TO FLAMES (SUP DAT)

Unusual Fire/Explosion Hazard:MOD FIRE HAZ WHEN EXPOSED TO HEAT/FLAME.

VAPS ARE HVR/AIR & MAY TRAVEL CONSIDERABLE DIST TO SOURCE OF IGNIT & FLASH BACK. VAP-AIR MIXS ARE EXPLO > FLASH POINT.

===== Accidental Release Me
asures =====

Spill Release Procedures:SHUT OFF IGNIT SOURCES. DO NOT TOUCH. STOP LEAK. USE WATER SPRAY TO REDUCE VAPS. SML SPILL: TAKE UP W/ABSORB MATL FOR LATER DISP. LGE SPILL: DIKE. NO SMKNG, FLAMES/FLARES IN HAZ AREA. KEEP PEOPLE AWAY ; ISOLATE. FOR MORE SPECIFIC INFO CONT NEHC.

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:VAPORS MAY BE EXPLOSIVE. MATERI
AL IS

CORROSIVE; AVOID CONTACT WITH SKIN OR EYES. DO NOT ALLOW CONTAMINATION OF WATER SOURCES.

Other Precautions:STORE AWAY FROM INCOMPATIBLE SUBSTANCES. OBSERVE ALL FEDERAL, STATE AND LOCAL REGULATIONS WHEN STORING THIS SUBSTANCE.

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

Respiratory Protection:USE NIOSH APPROVED RESPIRATOR APPROPRIATE FOR EXPOSURE OF CONCERN . CONTACT NEHC FOR MORE SPECIFIC INFORMATION .

Ventilation:LOCAL EXHAUST OR PROCESS ENCLOSURE VENTILATION. EQUIPMENT SHOULD BE EXPLOSION-PROOF.

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 . APPROP PROT (IMPERVIOUS) CLTHG & EQUIP.

Work Hygienic Practices:NONE SPECIFIED BY MANUFACTURER.

Supplemental Safety and Health

APPEAR/ODOR: STANDING, ESP IN COLD. EXPLAN OF CARCIN: CARCIN. ANIMAL: NASAL TUMORS. EYE PROT: & FULL LENGTH FSHLD . FIRE FI

GHT PROC:

UNTIL WELL AFTER FIRE IS OUT. STAY AWAY FROM ENDS OF TANKS. F OR MASSIVE FIRE IN CARGO AREA, USE UNMANNED HOSE HOLDER/MONITOR NOZZ; IF IMPOSS, WITHDRAW FROM AREA & LET FIRE (ING 4)

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

Boiling Pt:B.P. Text:205F,96C
Melt/Freeze Pt:M.P/F.P Text:5F,-15C
Vapor Pres:67-88@20C
Vapor Density:1.04
Spec Gravity:1.08
pH:2.8-4
Solubility in Water:MISCIBLE
Appearance and Odor:COLORLESS LIQ W/PUNGENT ODOR; MAY BECOME CLOUDY/PRECIPITOUS ON (SUP DAT)
Percent Volatiles by Volume:100

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

Stability Indicator/Materials to Avoid:YES
ACIDS, ALKALIES, OXIDES, OXIDIZERS, PHENOL, STEEL, METALS. FOR COMPLETE LIST OF MATLS TO AVOID CONT NEHC .
Stability Condition to Avoid:HEAT, SPARKS, FLAMES OR OTHER IGNITION SOURCES.
Hazardous Decomposition Products:TOXIC AND HAZARDOUS FUMES OF FORMALDEHYDE AND OXIDES OF CARBON.
Conditions to Avoid Polymerization:WILL UNDERGO A NON-HAZARDOUS SELF-POLYMERIZATION. WILL POLYMERIZE WITH ACTIVE ORGANIC MATERIALS.

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

Waste Disposal Methods:OBSERVE ALL FEDERAL, STATE AND LOCAL REGULATIONS WHEN DISPOSING OF THIS SUBSTANCE.

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