

MALLINCKRODT INC.,SCIENCE PRODUCTS DIVISION -- FORMALDEHYDE SOLUTION,USP --
6505-01-084-3055

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

Product ID:FORMALDEHYDE SOLUTION,USP

MSDS Date:01/20/1988

FSC:6505

NIIN:01-084-3055

MSDS Number: BGKZK

=== Responsible Party ===

Company Name:MALLINCKRODT INC.,SCIENCE PRODUCTS DIVISION

Address:PARIS BYPASS

Box:M

City:PARIS

State:KY

ZIP:40361

Info Phone Num:314-982-5000

Emergency Phone Num:314-982-5000

CAGE:62910

=== Contractor Identification ===

Company Name:MALLINCKRODT SPECIALTY CHEMICALS CO

Address:222 RED SCHOOL LANE

Box:City:PHILLIPSBURG

State:NJ

ZIP:08865

Country:US

Phone:908-859-2151

CAGE:62910

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

Ingred Name:FORMALDEHYDE (SARA III)

CAS:50-00-0

RTECS #:LP8925000

Fraction by Wt: 37.0%

Other REC Limits:NONE

OSHA PEL:SEE 1910.1048

ACGIH TLV:C 0.3 PPM; A2; 9293

EPA Rpt Qty:100 LBS

DOT Rpt

Qty:100 LBS

Ingred Name:METHYL ALCOHOL (METHANOL) (SARA III)

CAS:67-56-1

RTECS #:PC1400000

Fraction by Wt: 10-15%

Other REC Limits:NONE

OSHA PEL:S,200PPM/250STEL

ACGIH TLV:S,200PPM/250STEL; 93

EPA Rpt Qty:5000 LBS

DOT Rpt Qty:5000 LBS

Ingred Name:WATER: WT% BY DIFFERENCE

CAS:7732-18-5

RTECS #:ZC0110000

Fraction by Wt: 48-53%

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

LD50 LC50 Mixture:LD50 ORAL RAT=800MG./KG

Routes of Entry: Inhalation:NO Skin:YES Ingestion:YES

Re

ports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES

Health Hazards Acute and Chronic:ACUTE:SEE SIGNS & SYMPTOMS OF

OVEREXPOSURE. CHRONIC:HYPERSENSITIVITY LEADING TO CONTACT

DERMATITIS,ALLERGIC REACTION,VISION IMPAIRMENT,ENLARGEMENT OF LIVER

Explanation of Carcinogenicity:FORMALDEHYDE IS A SUSPECTED HUMAN

CARCINOGEN.

Effects of Overexposure:EYES:IRRITATION,REDNESS,PAIN,BLURRED

VISION,IRREVERSIBLE EYE

DAMAGE;SKIN:REDNESS,PAIN,BURNS,DISCOLORATION,CRACKING,SCALING;SKIN

AB

SORPTION:SAME SYMPTOMS AS INGNITION;INHALATION:SORE

THROAT,COUGH,SHORT NESS OF BREATH,IRRITATION,SEVERE RESPIRATORY

TRACT INJURY LEADING TO PULMONARY EDEMA & PNEUMONITIS-SEE

SUPPLEMENTAL DATA-

Medical Cond Aggravated by Exposure:PERSONS WITH PRE-EXISTING SKIN

DISORDERS,EYE PROBLEMS,OR IMPAIRED LIVER,KIDNEY OR RESPIRATORY

FUNCTION

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

First Aid:EYES:WASH WITH PLENTY OF WATER FOR 15 MINUTES.SEE DOCTOR

IMMEDIAT

ELY;SKIN:FLUSH WITH PLENTY OF WATER FOR 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING & SHOES;INHALATION:REMOVE TO FRESH AIR.GIVE CPR /OXYGEN IF NEEDED.SEE DOCTOR;INGESTION:GIVE 2 GLASSES OF WATER.INDUCE VOMIT.NOTHING BY MOUTH IF UNCONSCIOUS.SEE DOCTOR IMMEDIATELY.

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

Flash Point:140F(60C)

Autoignition Temp:Autoignition Temp Text:572F

Lower Limits:7.0

Upper Limits:73

Extinguishing Media:WATER SPRAY CAN BE USED TO EXTINGUISHER FIRES &

COOL FIRE EXPOSED CONTAINERS.

Fire Fighting Procedures:WEAR SCBA & PROTECTIVE CLOTHING. WATER MAY BE USED TO FLUSH SPILLD & TO DILUTE SPILLS TO NON-FLAMMABLE MIXTURES.

Unusual Fire/Explosion Hazard:ABOVE FLASH POINT,VAP-AIR MIXTURES ARE EXPLOSIVE WITHIN FLAMMABLE LIMITS; AUTO IGN TEMP:300C(572F)

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

Spill Release Procedures:WEAR SCBA & PROTECTIVE CLOTHING.REMOVE IGNITION SOURCES.VENTILATE.AB

SORB IN INERT MATERIAL & PLACE IN APPROPRIATE DISPOSAL CONTAINER.

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

Handling and Storage Precautions:KEEP CONTAINERS CLOSED.PROTECT AGAINST PHYSICAL DAMAGE.OUTSIDE OR DETACHED STORAGE IS PREFERRED.INSIDE STORAGE SHOULD BE IN STD FLAMM.LIQ.STORAGE ROOM

Other Precautions:SEPARATE FROM OXIDIZING MATERIALS.STORAGE & USE AREAS SHOULD BE NO SMOKING.

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

Respiratory Protection:WEAR A SUPPLIED AIR,FULL-FACEPIECE RESPIRATOR,AIRLINED HOOD,OR SCBA IF TLV IS EXCEEDED.

Ventilation:LOCAL EXHAUST TO MAINTN BELOW TLV.

Protective Gloves:IMPERVIOUS

Eye Protection:GOGGLES/FACE SHIELD

Other Protective Equipment:IMPERVIOUS PROTECTIVE CLOTHING,INCLUDING BOOTS,LAB COAT,APRON OR COVERALLS. SAFETY SHOWER & EYE WASH STATION.

Work Hygienic Practices:WASH HANDS,FACE,FOREARMS & NECK WHEN EXITING RESTRICTED AREAS-SEE SUPPLEMENTAL DATA.

Supplemental Saf

ety and Health

CONT'D FROM SIGNS & SYMPTOMS OF OVEREXPOSURE:MAY BE FATAL IN HIGH CONCENTRATIONS;INGESTION:SEVERE ABDOMINAL PAIN,VIOLENT VOMIT,HEADACHE,DIARRHEA.DECREASED BODY TEMPERATURE,PAIN IN DIGESTIVE TRACT,SHAL LOW RESPIRATION,WEAK IRREGULAR PULSE,UNCONSCIOUSNESS,DEATH.METHANOL COMPONENT AFFECTS OPTIC NERVE & MAY CAUSE BLINDNESS.

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

HCC:F4

Boiling Pt:B.P. Text:C)

Melt/Freeze Pt:M.P/F.P Text:5F(-15C)

Vapo

r Density:1.04

Spec Gravity:1.08

Solubility in Water:COMPLETE

Appearance and Odor:CLEAR,COLORLESS LIQUID. PUNGENT ODOR.

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

Stability Indicator/Materials to Avoid:YES

OXIDIZERS,ALKALIES,PERCHLORIC ACID,NITROGEN DIOXIDE,NITROMETHANE,HYDROCHLORIC ACID.

Stability Condition to Avoid:HEAT, IGNITION SOURCES

Hazardous Decomposition Products:CO

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

Waste Disposal Method

s:COLLECT SPILLS & ATOMIZE IN A RCRA-APPROVED

COMBUSTION CHAMBER.BEFORE ATOMIZING,DISSOLVE IN AN APPROPRIATE COMBUSTIBLE SOLVENT.WASTE CAN BE DISPOSED IN A RCRA APPROVED FACILITY.ENSURE COMPLIANCE W/LOC AL,STATE & FED REGS: CWA/CERCL RQ:1000 LBS.

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, war

rants this information to be accurate and disclaims all liability for its use. Any person utilizing this document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.