

MALLINCKRODT INC.,SCIENCE PRODUCTS DIVISION -- FORMALDEHYDE -- 6810-00-069-2958

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

Product ID:FORMALDEHYDE

MSDS Date:01/20/1988

FSC:6810

NIIN:00-069-2958

MSDS Number: BCXGD

=== 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:314-98

2-5000

Preparer's Name:NOT PROVIDED

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 R

pt Qty:100 LBS

Ingred Name:METHANOL (METHYL ALCOHOL)

CAS:67-56-1

RTECS #:FC1400000

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

Reports of C

arcinogenicity: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,PAINS,BLURRED VISION,IRREVERSIBLE EYE DAMAGE;SKIN:REDNESS,PAIN,BURNS,DISCOLORATION,CRACKING,SCALING;SKIN ABSORP

TION:SAME SYMPTOMS AS INGESTION;INHALATION:SORE THROAT,COUGH,SHORTNESS OF BREATH,IRRITATION,SEVERE RESPIRATORY TRACT INJURY LEADING TO PULMONARY EDEMA & PNEUMONITIS-SEE SUPPLEMENTAL DAT

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 IMMEDIATELY

;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:=60.C, 140.F

Autoignition Temp:=300.C, 572.F

Lower Limits:7.0

Upper Limits:73

Extinguishing Media:WATER SPRAY CAN BE USED TO EXTINGUISH FIRES & COOL

FIRE EXPOSED CONTAINERS.

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

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:ELIM IGN SOURCES,VENTLT & EVAC AREA.USE PROTCTV CLTHG/RESP PROTCTION FM VAP.CONTAIN &

RECOVR LIQ IF

POSS.ABSORB W/VRMCULITE,EARTH,ETC.SCOOP UP W/NON-SPARKG TOOLS & PLACE IN CLOSD CNTNRS.USE H\*2O SPRAY TO DISPERSE VAP/COOL CNTNR.DO NOT FLUSH TO SEWR.

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

Handling and Storage Precautions:PROTCT AGAINST PHYSICAL DAMAGE.STORE IN COOL,DRY WELL VNTLTD AREA AWAY FM ING/HEAT SOURCES,OXIDZG MATL.OUTSIDE OR DETACHED STORAGE IS PREFFERED.

Other Precautions:KEEP AWAY FROM HEAT,SPARKS,FLAMES.KEEP CONTNRS CLOSED.USE W/ADEQUATE VENT.AVOID BRTHG VAP.WASH THOROUGHLY AFTER HNDLG.BOND/GROUND CONTNRS WHEN TRNSFRG MATERL.USE NON-SPARKG TYPE TOOL & EQUIP.

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

Respiratory Protection:SCBA, SUPPLIED AIR RESPIRATOR

Ventilation:LOCAL EXHAUST TO MAINTN BELOW TLV.

Protective Gloves:IMPERVIOUS

Eye Protection:GOGGLES/FACE SHIELD

Other Protective Equipment:FULL PROTECTIVE CLOTHING,SAFETY SHOWER,EYE WASH STATION

Work Hygienic Practice

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

Supplemental Safety 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:F6  
NRC/State Lic Num:NOT RELEVANT  
Boiling Pt:=96.1C, 205.F  
Melt/Freeze Pt:=-15.C, 5.F  
Vapor 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 SOURCE  
S  
Hazardous Decomposition Products:CO

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

Waste Disposal Methods: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/LOCAL,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, warrants 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.