

MALLINCKRODT,INC -- FORMIC ACID 88% -- 6810-00-264-8954

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

Product ID:FORMIC ACID 88%

MSDS Date:07/13/1987

FSC:6810

NIIN:00-264-8954

MSDS Number: BDQXK

=== Responsible Party ===

Company Name:MALLINCKRODT,INC

Address:PARIS BYPASS

Box:M

City:PARIS

State:KY

ZIP:40361

Country:US

Info Phone Num:314-982-5000

Emergency Phone Num:314-982-5000

CAGE:DO880

=== Contractor Ident

ification ===

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

Company Name:MALLINCKRODT,INC.,SCIENCE PRODUCTS DIV.

Box:BOX M

City:PARIS

State:KY

ZIP:43061

Country:US

CAGE:DO880

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

Ingred Name:FORMIC ACID (SARA III)

CAS:64-18-6

RTECS #:LQ4900000

Fraction by Wt: 88%

OSHA PEL:5 PPM

ACGIH TLV:5 PPM/10 STEL; 9192

EPA Rpt Qt

y:5000 LBS  
DOT Rpt Qty:5000 LBS

Ingred Name:WATER  
CAS:7732-18-5  
RTECS #:ZC0110000  
Fraction by Wt: 12.0%

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

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES  
Effects of Overexposure:EYES-TISSUE & CORNEAL DAM. SKIN-SEVERE  
IRRIT;REDNESS,PAIN,BURNS. INHAL-SEVERE IRRIT OF NOSE,THROAT,UPPER  
RESPIR TRACT;POSS LUNG DAMAGE. INGEST-SERIOUS BURNS,CORROSION OF  
MOUTH,THROAT,ESOPHAGUS,W/IMMED PAIN,DIFFICULT  
SWALLOWING  
;ALSO,ABDOM PAIN,NAUSEA,DIARRHEA,VOMIT;POSS SHORTNESS OF  
BREATH;DEATH.  
Medical Cond Aggravated by Exposure:NONE KNOWN

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

First Aid:EYE-FLUSH W/WATER 15 MIN;GET IMMED MED ATTN. SKIN-REMOVE  
CONTAM CLOTH;WASH AREA W/WATER 15 MIN;IF IRRIT PERSIST,GET MED  
ATTN. INHAL-GET TO FRESH AIR;GIVE ARTIF RESPIR IF REQD;GET MED  
ATTN. INGEST-IF C ONSCIOUS,GIVE LGE QTY WATER. DO NOT INDUCE  
VOMIT;GET MED ATTN.

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

Flash Point Method:CC  
Flash Point:122F/50C  
Lower Limits:18  
Upper Limits:57  
Extinguishing Media:DRY CHEMICAL,FOAM,CARBON DIOXIDE. WATER SPRAY MAY  
BE USED TO KEEP FIRE-EXPOSED CONTAINERS COOL.  
Fire Fighting Procedures:WEAR FULL PROTECT CLOTH & NIOSH-APPROVED  
SLF-CONTND BREATH APPAR W/FULL FACEPIECE OPER IN PRESS DEMAND  
MODE/OTHER POS PRESSURE MODE.  
Unusual Fire/Explosion Hazard:NOT GIVEN

=====  
===== Accidental Release Measu

res =====

Spill Release Procedures:VENT AREA;REMOVE ALL SOURCES IGNITION. USE PROTECT CLOTH & RESPIR PROTECT FM VAPORS. CONTAIN & RECOVER LIQ WHEN POSS. ABSORB RESIDUE W/VERMICULITE,DRY SAND ETC. DO NOT FLUSH TO SEWER.

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

Handling and Storage Precautions:AVOID CONTACT W/EYES,SKIN,CLOTHING;AVOID BREATHING MIST. KEEP CONTNR CLOSED. USE W/ADEQUATE VENT. WASH THOROUGHLY AFTER HANDLING. KEEP AWAY FM HEAT.

Other Precautions:SHOULD BE HANDLED IN 316 STAINLESS STEEL GLASS,CERAMIC,OR SIMILAR CORROSION RESISTANT MATLS.

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

Respiratory Protection:IF TLV EXCEED-FULL FACEPIECE CHEM CART RESPIR;SUPPLIED AIR FULL FACEPIECE RESPIR OR AIRLINED HOOD  
Ventilation:LOCAL OR GENERAL EXHAUST. LOCAL EXHAUST PREFERRED  
Protective Gloves:RUBBER OR NEOPRENE  
Eye Protection:CHEM SAF GOGGLES OR FULL FACESHIELD  
Other Protective Equipment:FULL PR  
TECTIVE CLOTHING,SAFETY SHOWER,EYE WASH STATION  
Supplemental Safety and Health  
MSDS FM MFR DATED 01 NOV 85,CONFORMS TO OSHA HAZ COMM STD.

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

HCC:F6  
Boiling Pt:=107.2C, 225.F  
Melt/Freeze Pt:=-12.2C, 10.F  
Vapor Pres:40  
Vapor Density:1.6  
Spec Gravity:1.2  
Evaporation Rate & Reference:2.1 /BUTACET=1/  
Solubility in Water:COMPLETE  
Appearance and Odor:CLEAR,COLORLESS LIQUID;CHARACTERISTIC,PUNGENT ODOR

===== Stabil

ity and Reactivity Data =====

Stability Indicator/Materials to Avoid: YES

SULFURIC ACID, STRONG CAUSTICS, FURFURYL ALCOHOL, HYDROGEN PEROXIDE, STRONG OXIDIZERS & BASES.

Stability Condition to Avoid: NOT GIVEN

Hazardous Decomposition Products: CARBON MONOXIDE; CARBON DIOXIDE.

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

Waste Disposal Methods: CAN ATOMIZE IN SUITABLE RCRA APPROVED COMBUSTION CHAMBER OR SEND TO RCRA APPROVED DISPOSAL FACILITY. ENSURE COMPLIANCE W/LOCAL, STATE & FED REGS.

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.