

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

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===== 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 Iden

tification ===

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

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===== 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 Q

ty:5000 LBS  
DOT Rpt Qty:5000 LBS

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

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===== 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  
SWALLOWIN  
G;ALSO,ABDOM PAIN,NAUSEA,DIARRHEA,VOMIT;POSS SHORTNESS OF  
BREATH;DEATH.  
Medical Cond Aggravated by Exposure:NONE KNOWN

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===== 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.

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===== 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

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===== Accidental Release Meas

ures =====

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 P  
ROTECTIVE 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

===== Stabi

lity 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 COMP

LIANCE W/LOCAL, STATE & FED REGS.

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