



An ISO 9001:2000
Certified Company

Product Information (203) 740-3471 / Emergency Assistance CHEMTREC 1-800-424-9300
or 202-483-7616

MATERIAL SAFETY DATA SHEETS

Part Number/Trade Name: FORMIC ACID (88-91%)
This MSDS is valid for all grades that start with catalog number 283

General Information

Company's Name: PHARMCO PRODUCTS, INC.	Safety Data Review Date: 8/23/99
Company's Street: 58 VALE RD.	Preparer's Company: PHARMCO PRODUCTS, INC.
Company's City: BROOKFIELD	Preparer's St Or P. O. Box: 58 VALE RD.
Company's State: CT	Preparer's City: BROOKFIELD
Company's Zip Code: 06804	Preparer's State: CT
Company's Emerg Ph #: (203) 740-3471	Preparer's Zip Code: 06804
Company's Info Ph #: (203) 740-3471	
Date MSDS Revised: Nishant-8/23/99	

Ingredients/Identity Information

Ingredient: FORMIC ACID (SARA III)	CAS Number: 64-18-6
Ingredient Sequence Number: 01	OSHA PEL: 5 PPM
Percent: 88.0	ACGIH TLV: 5 PPM/10 STEL; 9192
NIOSH (RTECS) Number: LQ4900000	

Physical/Chemical Characteristics

Appearance And Odor: CLEAR COLORLESS LIQUID.CHARACTERISTIC PUNGENT ODOR	Specific Gravity: 1.2
Boiling Point: 107C(225F)	Decomposition Temperature: UNKNOWN
Melting Point: 10.4F/-12C	Evaporation Rate And Ref: 2.1 (BUT ACETATE=1)
Vapor Pressure (MM Hg/70 F): 40	Solubility In Water: COMPLETE
Vapor Density (Air=1): 1.6	Percent Volatiles By Volume: 100
	Corrosion Rate (IPY): UNKNOWN

Fire and Explosion Hazard Data

Flash Point: 122F/50C (90%)
Flash Point Method: CC
Lower Explosive Limit: 18.0
Upper Explosive Limit: 57.0
Extinguishing Media: DRY CHEM,FOAM OR CO2;WATER SPRAY:USE TO COOL EXPOS
CONTNRS
Special Fire Fighting Proc: INEVENT OF A FIRE WEAR FULL PROTECTIVE
CLOTHING AND NIOSH APPROVED SCBA W/ FULL FACEPIECE OPERATED IN PRESSURE
DEMAND MODE.
Unusual Fire And Expl Hazrds: SUPPLIER DID NOT ADDRESS THIS FIELD.

Reactivity Data

Stability: YES
Cond To Avoid (Stability): HEAT, IGNITION
SOURCES
Materials To Avoid: STRONG
OXIDIZERS,CAUSTICS & BASES,HYDROGEN
PEROXIDE,

ETC.
Hazardous Decomp Products: CO, CO2 WHEN
HEATD TO DECOMPOSITION; DEHYDRTD
BY H2SO4 TO CO
Hazardous Poly Occur: NO
Conditions To Avoid (Poly): UNKNOWN

Health Hazard Data

Route Of Entry - Inhalation: YES
Route Of Entry - Skin: YES
Route Of Entry - Ingestion: YES
Health Haz Acute And Chronic: ACUTE:CORROSIVE TO ALL BODY TISSUES;CORNEAL
DAMAGE TO EYES;REDNESS OF SKIN,PAIN OR BURNS;IRRITATION OF NOSE,THROAT,
RESPIRATORY TRACT. CHRONIC:LUNG,EYE DAMAGE;DERMATITIS,IRRITATION;BURNS.
Explanation Carcinogenicity: THIS PRODUCT IS NOT LISTED BY NTP, IARC, OR
OSHA
Signs/Symptoms Of Overexp: INHALED: SEVERE IRRITATION OF RESPIRATORY
TRACT. INGESTION: CORROSION, BURNS OF THROAT AND MOUTH. ABDOMINAL PAIN,
NAUSEA, DIARRHEA, AND VOMITING. SKIN: SEVERE IRRITATION, REDNESS, PAIN,
BURNS. EYE: VAPORS CAUSE SEVERE IRRITATION, LIQUID, CORROSIVE, BURNS,
CORNEAL DAMAGE.
Med Cond Aggravated By Exp: NO INFORMATION FOUND
Emergency/First Aid Proc: INHAL:MOVE TO FRESH AIR.IF NEEDED,GIVE
ARTIFICIAL RESPIRATION. GET MEDICAL ATTN. INGEST:DO NOT INDUCE VOMITING. IF
CONSCIOUS, GIVE SEVERAL GLASSES OF WATER. GET IMMEDIATE MEDICAL ATTN.
SKIN:REMOVE CONTAMINATED CLOTHING AND FLUSH W/WATER FOR 15 MIN. IF
IRRITATION PERSISTS, GET MEDICAL ATTN. EYE: IMMEDIATELY FLUSH W/PLENTY OF
WATER FOR AT LEAST 15 MIN, LIFTING EYELIDS. GET MEDICAL ATTN.

Precautions for Safe Handling and Use

Steps If Matl Released/Spill: VENTILATE & EVACUATE AREA. ELIMINATE
IGNITION SOURCES. WEAR PERSONAL PROTECTIVE EQUIPMENT. CONTAIN & RECOVER
LIQUID WHEN POSSIBLE. SPILLS MAY BE ABSORBED W/INERT MATERIAL OR PLACED IN
A CONTAINER (AS LIQUID) PENDING DISPOSAL. DO NOT FLUSH TO SEWER.
Neutralizing Agent: NO INFORMATION GIVEN ON MSDS BY SUPPLIER
Waste Disposal Method: COLLECTED SPILLS MAY BE ATOMIZED IN A RCRA-
APPROVED COMBUSTION CHAMBER OR SHIPPED TO RCRA APPROVED FACILITY.
Precautions-Handling/Storing: KEEP IN TIGHTLY CLOSED CONTNRS AT COOL,DRY,
VENTILATED PLACE.PROTECT AGAINST PHY DAMAGE.ISOLATE FROM INCOMPATIBLE MATL
& OUT OF DIRECT SUNLIGHT.
Other Precautions: AVOID BREATHING MIST.USE W/ADEQUATE VENTILATION.KEEP
CONTAINRS CLOSED.WASH THOROUGHLY AFTER HANDLING.AVOID SKIN,EYES & CLOTHING
CONTACT. DANGER! CORROSIVE.CAUSES SEVER BURNS.HARMFUL IF SWALLD.

Control Measures

Respiratory Protection: USE NIOSH/MSHA APPROVED FULL FACE PIECE CHEMICAL
CARTRIDGE RESPIRATOR UP TO 100X TLV OR FULL FACE PIECE AIR LINE RESPIRATOR
OR SCBA IF ABOVE THAT LEVEL.
Ventilation: USE GENERAL AND LOCAL EXHAUST AS NEEDED TO MAINTAIN EXPOSURES
BELOW PEL/TLV.
Protective Gloves: NEOPRENE OR RUBBER.
Eye Protection: SPLASH GOGGLES AND/OR FACE SHIELD
Other Protective Equipment: FULL IMPERVIOUS PROTECTIVE CLOTHING,SAFETY
SHOWER,EYE WASH STATION
Work Hygienic Practices: USE STRICT CHEMICAL HYGIENE PRACTICE. AVOID ALL

CONTACT IF POSSIBLE. WASH THOROUGHLY BEFORE EATING OR DRINKING.
Suppl. Safety & Health Data: NONE

Transportation Data

Trans Data Review Date: 92295	IATA UN ID Number: 1779
DOT PSN Code: GNR	IATA Proper Shipping Name: FORMIC ACID
DOT Proper Shipping Name: FORMIC ACID	IATA UN Class: 8
DOT Class: 8	IATA Label: CORROSIVE
DOT ID Number: UN1779	AFI PSN Code: MLB
DOT Pack Group: II	AFI Prop. Shipping Name: FORMIC ACID
DOT Label: CORROSIVE	AFI Class: 8
IMO PSN Code: HMT	AFI ID Number: UN1779
IMO Proper Shipping Name: FORMIC ACID	AFI Pack Group: II
IMO Regulations Page Number: 8177	AFI Label: CORROSIVE
IMO UN Number: 1779	AFI Basic Pac Ref: 12-5
IMO UN Class: 8	Additional Trans Data: RQ FORMIC ACID = 5000
IMO Subsidiary Risk Label: -	POUNDS
IATA PSN Code: MLB	

Disposal Data

Refer to applicable regional, state and federal codes.

Label Data

Common Name: FORMIC ACID
Signal Word: DANGER!
Acute Health Hazard-Slight: X
Contact Hazard-Severe: X
Fire Hazard-Severe: X
Reactivity Hazard-None: X
Special Hazard Precautions: ACUTE:CORROSIVE TO ALL BODY TISSUES;CORNEAL
DAMAGE TO EYES;REDNESS OF SKIN,PAIN OR BURNS;IRRITATION OF NOSE,THROAT,
RESPIRATORY TRACT. CHRONIC:LUNG,EYE DAMAGE;DERMATITIS,IRRITATION;BURNS.
KEEP IN TIGHTLY CLOSED CONTNRS AT COOL,DRY, VENTILATED PLACE.PROTECT
AGAINST PHY DAMAGE.ISOLATE FROM INCOMPATIBLE MATL & OUT OF DIRECT SUNLIGHT.
SUPPLIER DID NOT ADDRESS THIS FIELD. IN CASE OF SPILL: VENTILATE & EVACUATE
AREA. ELIMINATE IGNITION SOURCES. WEAR PERSONAL PROTECTIVE EQUIPMENT.
CONTAIN & RECOVER LIQUID WHEN POSSIBLE. SPILLS MAY BE ABSORBED W/INERT
MATERIAL OR PLACED IN A CONTAINER (AS LIQUID) PENDING DISPOSAL. DO NOT
FLUSH TO SEWER.
Protect Eye: Y
Protect Skin: Y
Protect Respiratory: Y

The information contained herein is based on data considered to be accurate. However, no warranty is expressed regarding the accuracy of these data or the results to be obtained from the use thereof. It is the user's obligation to determine the conditions of safe use of the product.