

The Butler Corporation

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HAZARD RATING HMIS

Health = 3, Flammability = 2, Reactivity = 1
 (Index: 4 = very high, 3 = high, 2 = moderate
 1 = slight, 0 = insignificant)

Material Safety Data Sheet**I. General Information**

Trade Name & Synonym Formic acid		Chemical Family Carboxylic acids
Chemical Name & Synonym Mixture	Date prepared Jan. 1996	Prepared by Aziz Ullah Ph.D.

II. Ingredients

Formic acid CAS 64-18-6 5ppm ACGIH

III Physical Properties

Boiling Point 105°C	Specific Gravity(Water=1) 1.20
Vapor Pressure(mm Hg.) 32	Melting Point -5°C
Vapor Density(AIR=1) ND	Evaporation Rate (Butyl Acetate=1) ND
Solubility in Water Completely soluble	Appearance and odor colorless liquid, sharp pungent odor
pH 2 10g/l water.	

IV. Fire and Explosion Hazard Data

Flash Point (TOC) 58°C	Flammable Limits	LEL 14.3	UEL 34
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Extinguishing Media

Foam, CO₂, Dry Chemical, Water Fog

Special Fire Fighting Procedures

Usual Fire fighting procedures can be used

Unusual Fire and Explosion Hazards

NFPA flame limits 18%

V. Reactivity Data

Stability	Unstable	Conditions to avoid High temperatures
	Stable X	
Incompatibility (Materials to avoid)	Oxidizing agents, alkalis, nylon. Corrosive to carbon steel, copper alloys and lead	
Hazard Decomposition or Byproducts	Thermal decomposition can produce carbon monoxide	
Hazardous Polymerization	May occur	Conditions to avoid
	Will not occur X	

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VI. Health Hazard Data

Routes of Entry	Inhalation	Skin	Ingestion	Eyes
	Yes	yes	Yes	Yes

Health Hazards

Formic acid vapors can be irritating to eyes nose and throat, contact of the liquid with skin can cause severe irritation and blistering, contact with eyes causes burns possible permanent damage

Signs and Symptoms of Exposure

Irritation discomfort

Medical Conditions Aggravated by Exposure

None known

Emergency and First Aid Procedures

Move to fresh air. If contacted flush Thoroughly with water If irritation persists see physician if ingested drink milk or water see physician. If eyes are contacted immediately wash with water for 15 minutes see physician

VII. Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled

Flush with water.

Waste Disposal Method

Check with federal state or local regulations, waste may be discharged into sanitary sewer after neutralizing, if regulations permit

Precautions to be taken in Handling and Storing

Store in a cool place,. Avoid breathing vapor keep away from eyes and contact with skin

Other Precautions

NA

VIII. Control Measures

Respiratory Protection

Chemical cartridge respirators suitable for organic vapors

Ventilation

Provide ventilation

Local Exhaust

Special

Mechanical

X

Other

Protective Gloves

Use impermeable gloves

Eye Protection

Splash proof goggles with side shields

Other Protective Clothing or Equipment

Avoid breathing vapor TLV/TWA(ACGIH) 5ppm

Work/Hygienic Practices

Wash after handling Keep out of reach of children

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