

SAFETY DATA SHEET

Formic Acid, 1% Aqueous

Section 1 - Chemical Product and Company Identification

SDS Name: Formic Acid, 1% Aqueous

Catalog Numbers: SO-743

Company Identification: ROWLEY BIOCHEMICAL
10 ELECTRONICS AVENUE
DANVERS, MA 01923

For information, call: 978-739-4883

Emergency Number: 800-424-9300

For CHEMTREC assistance, call: 800-424-9300

Section 2 - Hazards Identification

GHS Classifications

H315-Skin corrosion/irritation: 2

H320-Serious eye damage/eye irritation: 2B

Pictograms or Hazard symbols and Hazard statement.



Signal word: Warning

Hazard Statements:

H315- Causes Skin Irritation

H320- Causes Eye Irritation

Precautionary Statements:

P264-Wash thoroughly after handling.

P280-Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352-If on skin: Wash with plenty of soap and water.

P305+P351+P338-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332+P313-If skin irritation occurs: Get medical advice/attention.

P337+P313-If eye irritation persists: Get medical advice/attention.

P362-Take off contaminated clothing and wash before reuse.

Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
64-18-6	Formic Acid	1 v/v
7732-18-5	Water	Balance

Section 4 - First Aid Measures

Eye Exposure: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Dermal Exposure: In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes.

Oral Exposure: If Swallowing seek immediate medical advice.

Inhalation Exposure: If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

Section 5 - Fire Fighting Measures

Firefighters should wear proper protective clothing and self contained breathing apparatus with full piece operated in positive pressure mode to prevent contact with skin and eyes.

Extinguishing Media: Use water spray, dry chemical powder, or appropriate foam.

Flash Point: N/A

NFPA Rating: (estimated) Health: 3; Flammability: 0; Instability: 0

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s):

Wear protective gear.

Methods for Cleaning up: Absorb with sand, earth or vermiculite. Carefully sweep up and containerize for proper disposal.

Section 7 - Handling and Storage

Use care when handling. Wash thoroughly after handling. Store capped at room temperature. Keep away from incompatible materials.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: Clear, Colorless

Odor: N/A

Solubility: N/A

pH: N/A

Vapor Pressure: N/A

Vapor Density: N/A

Evaporation Rate: N/A

Viscosity: N/A

Boiling Point: N/A

Section 10 - Stability and Reactivity

Chemical Stability: Keep refrigerated. Stable under ordinary conditions of use and storage.

Conditions to Avoid: Ignition sources, excess heat, confined spaces.

Incompatibilities with Other Materials: Not available.

Hazardous Decomposition Products: Formic acid may decompose to carbon monoxide and water or carbon dioxide and hydrogen gas. These decomposition products develop pressure.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

CAS# 64-18-6

LD50/LC50:

Oral Mouse: 700 mg/kg

Oral Rat: 1100 mg/kg

Oral Dog: 4000 mg/kg

Vapor Mouse LC50: 6200 mg/m 0.25 hours

Carcinogenicity: NTP: No **IARC:** No **Z List:** No **OSHA reg.** No

Chronic Effects on Humans:

May cause damage to the following organs: kidneys, liver, mucous membranes, upper respiratory tract, skin, eyes, Circulatory System, teeth.

Other Toxic Effects on Humans:

Very hazardous in case of skin contact (corrosive, irritant, permeator), of ingestion. Hazardous in case of eye contact (corrosive), of inhalation (lung corrosive).

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: Skin: Corrosive. Causes severe skin irritation and burns. Eyes: Corrosive. Causes severe eye irritation/conjunctivitis, burns, corneal necrosis.

Inhalation: May be fatal if inhaled. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract. Inhalation of hydrochloric acid fumes produces nose, throat, and laryngeal burning, and irritation, pain and inflammation, coughing,

sneezing, choking sensation, hoarseness, laryngeal spasms, upper respiratory tract edema, chest pains, as well as headache, and palpitations. Inhalation of high concentrations can result in corrosive burns, necrosis of bronchial epithelium, constriction of the larynx and bronchi, nasospetal perforation, glottal closure, occur, particularly if exposure is prolonged.

May affect the liver. Ingestion: May be fatal if swallowed. Causes irritation and burning, ulceration, or perforation of the gastrointestinal tract and resultant peritonitis, gastric hemorrhage and infection. Can also cause nausea, vomiting (with "coffee ground" emesis),

diarrhea, thirst, difficulty swallowing, salivation, chills, fever, uneasiness, shock, strictures and stenosis (esophageal, gastric, pyloric). May affect behavior (excitement), the cardiovascular system (weak rapid pulse, tachycardia), respiration (shallow respiration),

and urinary system (kidneys- renal failure, nephritis). Acute exposure via inhalation or ingestion can also cause erosion of tooth enamel.

IARC category 3 (Not classifiable for human)

Section 12 - Ecological Information

Ecotoxicity: No information available.

Environmental: No information available.

Physical: No information available.

Other: No information available.

Section 13 - Disposal Considerations

DISPOSAL: Dispose of in accordance with all federal, state, and local regulations.

Section 14 – Transport Information

DOT

Non-Regulated

Section 15 - Regulatory Information

Canada Regulatory Information

WHMIS Classification: This product has WHMIS classification of B3, E.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

C

Risk Phrases:

R35 Causes severe burns.

Safety Phrases:

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S26C Do not breathe vapour.

Section 16 - Additional Information

SDS Creation Date: 1/5/18

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