

# 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:** Transene Company, Inc., DBA ROWLEY BIOCHEMICAL Inc.  
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

H319-Serious eye damage/eye irritation: 2A

1% of the mixture consists of ingredients of unknown acute dermal toxicity.

#### Pictograms or Hazard Symbols and Hazard Statement(s):



Signal Word: Warning

#### Hazard Statements:

H315-Causes skin irritation

H319-Causes serious eye irritation

#### Precautionary Statements:

P264-Wash thoroughly after handling.

P280-Wear protective gloves/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+P364-Take off contaminated clothing and wash it 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. Obtain immediate medical attention.

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

**Oral Exposure:** If swallowed, clean mouth with water and seek immediate medical advice. Do NOT induce vomiting.

**Inhalation Exposure:** If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Seek immediate medical attention.

### Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating gases may be generated by thermal decomposition or combustion.

**Extinguishing Media:** Use dry chemical, carbon dioxide, dry sand, or alcohol-resistant foam. Do not put water on leaked material. Do not use water to extinguish.

**Hazardous Combustion Products:** Carbon oxides, hydrogen, irritating and toxic fumes and gases.

**Flash Point:** Not available

**Autoignition Temperature:** Not available

**Explosion Limits, Lower:** Not available

**Upper:** Not available

**NFPA Rating:** (estimated) Health: 2; Flammability: 0; Instability: 0

## Section 6 - Accidental Release Measures

### **Procedure(s) of Personal Precaution(s):**

Wear personal protective equipment. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Ensure adequate ventilation. Do not breathe mist/vapors/spray.

**Methods for Cleaning up:** Absorb with sand, earth, or vermiculite. Carefully sweep up and containerize for proper disposal. Do not release to the environment. Do not release to drains.

## Section 7 - Handling and Storage

Use care when handling. Wear personal protective equipment. Wash thoroughly after handling. Use only under a chemical fume hood. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Do not breathe mist/vapors/spray. Store in a tightly closed container in a cool, dry, and well-ventilated area. 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 chemical-resistant 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.

### **Exposure Limits:**

Chemical Name	ACGIH - TLV	NIOSH - IDLH	OSHA - Final PELs
Formic Acid CAS#64-18-6	5 ppm TWA 10 ppm STEL	5 ppm TWA 9 mg/m <sup>3</sup> TWA 30 ppm IDLH	5 ppm TWA 9 mg/m <sup>3</sup> TWA

**OSHA Vacated PELs:** Formic Acid: 5 ppm TWA; 9 mg/m<sup>3</sup> TWA

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid  
**Appearance:** Colorless  
**Odor:** Not available  
**Vapor Pressure:** Not available  
**Odor Threshold:** Not available  
**Vapor Density:** Not available  
**pH:** Approx. 2.2  
**Relative Density:** Not available  
**Melting point/freezing point:** Not available  
**Solubility:** Miscible in water  
**Boiling Point:** Not available  
**Flash Point:** Not available  
**Evaporation Rate:** Not available  
**Flammability (solid, gas):** Not available  
**Partition coefficient: n-octanol/water:** Not available  
**Autoignition Temperature:** Not available  
**Decomposition Temperature:** Not available  
**Viscosity:** Not available  
**Specific Gravity/Density:** Not available

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable in closed containers under normal storage conditions.  
**Conditions to Avoid:** Incompatible materials, excess heat.  
**Incompatibilities with other materials:** Strong oxidizing agents, strong bases, metals, and finely powdered metals.  
**Hazardous Decomposition Products:** Carbon oxides, hydrogen, irritating and toxic fumes and gases.

## Section 11 - Toxicological Information

**CAS#64-18-6 Formic Acid: RTECS#: LQ4900000**

LD50 Oral: 730 mg/kg (rat)

LD50 Dermal: Not available

LC50 Inhalation: 7.85 mg/L 4h (rat)

**Carcinogenicity:** Formic Acid CAS#64-18-6 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

**Information on the likely routes of exposure:** Routes of entry anticipated: oral, dermal, inhalation, and eye.

**Epidemiology:** Not available.

**Teratogenicity:** Not available.

**Reproductive Effects:** Not available.  
**Developmental Effects:** Not available.  
**Neurotoxicity:** Not available.  
**Mutagenicity:** Not available.  
**Specific Target Organ Toxicity, Single Exposure:** Not available.  
**Specific Target Organ Toxicity, Repeated Exposure:** Not available.

**Symptoms associated with exposure:** Symptoms of overexposure may include headache, dizziness, tiredness, shortness of breath, nausea, vomiting, cough, wheezing, burning sensation. Ingestion may cause swelling, damage to the delicate tissue, and danger of perforation. Causes skin and serious eye irritation. May cause kidney irregularities.

**The toxicological properties of this material have not been thoroughly investigated.**

Section 12 - Ecological Information
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**Ecotoxicity:** Do not release to the environment. Do not release to drains.

**CAS#64-18-6 Formic Acid:**

LC50, freshwater fish: 46-100 mg/L 96h (leuciscus idus)

EC50, freshwater algae: 25 mg/L 96h

EC50, water flea: 34 mg/L 48h

EC50, microtox: 46.7 mg/L 17h

**Persistence and degradability:** Persistence is unlikely based on available information.

**Bio-accumulative potential:** Bioaccumulation is unlikely based on available information.

**Mobility:** Will likely be mobile in the environment due to its water solubility.

Section 13 - Disposal Considerations
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**DISPOSAL:** Dispose of in accordance with all federal, state, and local regulations.

Section 14 – Transport Information
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**DOT**

Non-regulated

## Section 15 - Regulatory Information

### **Canada Regulatory Information**

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

## Section 16 - Additional Information

**SDS Creation Date:** 1-5-18

Revision #1: 8-6-21

Revision #2: 2-27-23

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