

# SAFETY DATA SHEET



Colonial Chemical Solutions, Inc.

## SECTION 1 - COMPANY AND PRODUCT IDENTIFICATION

### PRODUCT

**Product Name:** FORMIC ACID  
**Control Number:** 00016  
**Product Description:** Strong Acid

### COMPANY IDENTIFICATION

**Supplier:** COLONIAL CHEMICAL SOLUTIONS, INC.  
916 West Lathrop Avenue  
Savannah, Georgia 31415

**24 Hour Emergency Telephone:** (800)-424-9300 CHEMTREC  
**General Information:** (912) 236-1331

## SECTION 2- HAZARDS IDENTIFICATION

### GHS Classification:

#### [ Health ]

Acute toxicity, Inhalation Category 3  
Acute toxicity, Oral Category 4  
Skin corrosion Category 1A  
Serious eye damage Category 1

#### [ Environmental ]

Acute Aquatic Toxicity Category 3

#### [ Physical ]

Flammable Liquid Category 3

### GHS Label elements, including precautionary statements

#### Pictograms



**Signal Word:** Danger

#### Hazard statement(s)

H226 Flammable liquid and vapor.  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H331 Toxic if inhaled.  
H402 Harmful to aquatic life.

#### Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P233 Keep container tightly closed.  
P240 Ground/bond container and receiving equipment.  
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing.  
Rinse skin with water/ shower.  
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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## SECTION 3 · COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS Number	%WT
Formic Acid	64-18-6	90-99

## SECTION 4 · FIRST AID MEASURES

### FIRST AID PROCEDURES:

**Eye Contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

**Skin Contact:** Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

**Inhalation** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**Ingestion:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician

## SECTION 5 · FIRE FIGHTING MEASURES

**Suitable Extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Hazardous combustion products:** Oxides of carbon.

**Fire Fighting Procedures:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

**Unusual Fire and Explosion Hazards:** Containers can build up pressure if exposed to heat and/or fire. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire.

## SECTION 6 · ACCIDENTAL RELEASE and DISPOSAL MEASURES

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations

## SECTION 7 · STORAGE AND HANDLING

**Handling** Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Vent periodically. Handle and open container with care. Hygroscopic. Refrigerate before opening.

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## SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Engineering Controls:** Provide explosion-proof ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits indicated below.

**Exposure Limits:** Formic Acid 10 ppm ACGIH; 5 ppm OSHA

### Personal Protective Equipment (PPE):

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

**Skin:** If prolonged or repeated skin contact is likely, wear appropriate protective gloves.

**Clothing:** Selection of protective clothing depends on work conditions, potential exposure conditions and may include gloves, boots, suits and other protective items.

**Respirators:** Where adequate ventilation is not available an approved respirator must be worn. Respirator selection, use and maintenance should be in accordance with the requirements of OSHA Respiratory Protection Standard, 29 CFR 1920.134. In confined areas, use a self-contained breathing apparatus.

**Other Equipment:** Eye wash station and shower in close proximity to use are advised.

## SECTION 9- PHYSICAL AND CHEMICAL PROPERTIES

**Flash Point:** °F

**Autoignition Temperature:**

**Boiling Point:** 212 °F

**Melting Point:** 47 °F

**Vapor Pressure:** 32 mmHg

**Vapor Density (Air-1):** 1.6

**Odor/Appearance:** Colorless liquid no appreciable odor

**Flammability Limits:** Lower: 18 Upper: 57

**Specific Gravity:** 1.22

**Volatile %:** No available data

**Evaporation Rate (Water):** No available data

**pH:** <2.5

**Solubility in Water:** completely miscible

## SECTION 10 - STABILITY AND REACTIVITY

**Chemical Stability:** Stable under normal use and temperature conditions.

**Conditions to Avoid:** Keep away from heat, flame and other potential ignition sources.

**Incompatible materials:** Strong oxidizing agents, Strong bases, Powdered metals

**Decomposition Products:** When combusted, oxides of carbon and various hydrocarbons.

## SECTION 11 - TOXICOLOGICAL INFORMATION

### Signs and Symptoms of Overexposure:

**Skin:** Contact can cause redness and irritation. Severity depends on the amount and duration of exposure.

**Eyes:** Vapors are irritating to the eyes. Liquid contact will cause stinging and tearing.

**Inhalation:** Excessive inhalation of high concentrations may be harmful. Mist or vapor can irritate the throat and lungs. Breathing this material may cause central nervous system depression.

**Ingestion:** If swallowed this material may irritate the mucous membranes of the mouth throat and esophagus. Aspiration of this material into the lungs may result in damage or death.

### Acute oral toxicity:

Formic Acid: LD50 rat: 730 mg/kg

### Acute inhalation toxicity:

Formic Acid: LD50 rat: 7.4 mg/l 4h

### Acute dermal toxicity:

Formic Acid: LD50 rabbit; No published data

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## SECTION 12 - ECOLOGICAL INFORMATION

**Aquatic Toxicity:** fish LC50 - *Leuciscus idus* (Golden orfe) - 46 - 100 mg/l - 96 h

EC50 - *Daphnia magna* (Water flea) - 34.2 mg/l - 48 h

Toxicity to bacteria - *Pseudomonas putida* - 46.7 mg/l - 17 h

**Bio-accumulative potential:** Bioaccumulation of this product is not expected to be significant. This product is readily biodegradable.

**Mobility:** Accidental spillage may lead to penetration in the soil and contamination of groundwater.

## SECTION 13 - DISPOSAL CONSIDERATIONS

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

## SECTION 14 - TRANSPORTATION

**U.S. DEPARTMENT OF TRANSPORTATION (Road or Rail):**

**Proper Shipping Name:** Formic Acid

**Hazard Class:** 3 (8)

**UN Number:** 1779

**Packaging Group:** 2

## SECTION 15 - REGULATORY INFORMATION

### US FEDERAL REGULATIONS

**Comprehensive Environmental Response and Liability Act (CERCLA)**

#### SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

The reportable quantity (RQ) for this material is 5000 pounds. If appropriate, immediately report to the National Response Center (800/424-8802) as required by U.S. Federal Law. Also contact appropriate state and local regulatory agencies.

**Toxic Substance Control Act (TSCA):** All components of this product are listed on the TSCA inventory list.

#### SARA Section 311/312 (40 CFR 370) Hazard Categories:

Immediate Health Hazard. Delayed Health Hazard, Fire Hazard.

**SARA Section 313 (40 CFR 372) Hazard Categories:** This product contains the following toxic chemical subject to reporting requirements: Formic Acid

**Clean Water Act:** This product contains Formic Acid a chemicals that are listed under the CWA.

**Clean Air Act:** This product contains no chemicals that are listed under the CAA.

**California Prop 65:** This product contains no chemicals known by the State of California to cause cancer, birth defects or other reproductive harm.

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<b>SECTION 16 · OTHER INFORMATION</b>
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**MSDS Revision Date:** August 2014

**National Fire Protection Association (NFPA) Ratings:** This information is intended solely for the use of individuals trained in the NFPA system.

**Health:** 3

**Flammability:** 2

**Reactivity:** 0

The information above is believed to be accurate and represents the best information currently available to us. However, Colonial Chemical Solutions makes no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Colonial be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Colonial has been advised of the possibility of such damages. The vendor assumes no responsibility for injury or damages resulting from the inappropriate alteration or manipulation of this MSDS and its contents from that originally submitted by Colonial.