

MSDS

Material Safety Data Sheet

Section 1: Chemical Product and Company Identification

Catalog Number: 1120	
Product Identity: BOUIN'S FIXATIVE SOLUTION	
Manufacturer's Name: RICCA CHEMICAL COMPANY LLC	Emergency Contact(24 hr) -- CHEMTREC® Domestic: 800-424-9300 International: 703-527-3887
CAGE Code: 0V553	
Address: 448 West Fork Dr Arlington, TX 76012	Telephone Number For Information: 817-461-5601
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Section 2. Composition/Information on Ingredients

Component	CAS Registry #	Concentration	ACGIH TLV	OSHA PEL
Formaldehyde	50-00-0	8 - 10	C 0.3 ppm C 0.37 mg/m3	0.75 ppm -- mg/m3
Acetic Acid	64-19-7	4 - 6	10 ppm 25 mg/m3	10 ppm 25 mg/m3
Water, Deionized	7732-18-5	Balance	Not Available Not Available	Not Available Not Available
Picric Acid (2,4,6-Trinitrophenol)	88-89-1	< 1	Not Available 0.1 mg/m3	Not Available 0.1 mg/m3

Section 3: Hazard Identification

Emergency Overview: WARNING! Contains Formaldehyde, which is a potential carcinogen. Hazardous fumes and liquid. Use with adequate ventilation. Handle with extreme care. Avoid ingestion, inhalation, or contact with skin. If ingested, induce vomiting and call a physician. Wash areas of contact with plenty of water for 15 minutes. For eyes, get medical attention.

Target Organs: eyes, skin, respiratory system, central nervous system, kidneys, teeth.

Eye Contact: May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva.

Inhalation: Causes irritation of the respiratory tract. Symptoms may include sore throat, coughing and shortness of breath.

Skin Contact: May cause irritation, redness and pain. Frequent or prolonged exposure may cause hypersensitivity leading to contact dermatitis. Will stain areas of contact. Stains may be removed using Reagent Alcohol or dilute Ammonium Hydroxide Solution.

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Ingestion: May cause severe abdominal pain, vomiting, headache and diarrhea.

Chronic Effects/Carcinogenicity: None

IARC - Formaldehyde is carcinogenic to humans.

NTP - Formaldehyde - - Substances or groups of substances, and medical treatments which may reasonably be anticipated to be carcinogens.

OSHA - No.

Reproductive Information: Reproductive effects cited in 'Registry of Toxic Effects of Chemical Substances' for Acetic Acid. Reproductive effects cited in 'Registry of Toxic Effects of Chemical Substances' for Formaldehyde.

Teratology (Birth Defect) Information: Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for Picric Acid (2,4,6-Trinitrophenol). Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for Acetic Acid. Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for Formaldehyde.

Section 4: First Aid Measures - In all cases, seek qualified evaluation.

Eye Contact: Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops.

Inhalation: Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.

Skin Contact: Wash areas of contact with soap and water for at least 15 minutes. Call a physician if irritation develops.

Ingestion: Dilute immediately with water or milk. Induce vomiting. Call a physician.

Section 5: Fire Fighting Measures

Flash Point: Not Available.

LFL: Not Available.

Extinguishing Media: Use any means suitable for extinguishing surrounding fire.

Fire & Explosion Hazards: Not considered to be a fire or explosion hazard.

Fire Fighting Instructions: Use normal procedures/instructions.

Fire Fighting Equipment: Wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Method Used: Not Available.

UFL: Not Available.

Section 6: Accidental Release Measures

Ventilate area of leak or spill. Absorb with suitable material and save for proper disposal. See Section 13.

Section 7. Handling and Storage

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. Store at controlled room temperature, 15 - 30°C.

Safety Storage Code: Corrosive

Section 8: Exposure Control/Personal Protection

Engineering Controls: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limit.

Respiratory Protection: If the exposure limit is exceeded, a full facepiece respirator equipped with organic vapor cartridge should be worn.

Skin Protection: Chemical resistant gloves.

Eye Protection: Safety glasses or goggles.

Section 9: Physical and Chemical Properties

Appearance: Clear, yellow liquid

Odor: pungent (Formaldehyde odor)

Solubility in Water: Infinite

Specific Gravity: Approximately 1.01

pH: Not Available.

Boiling Point(°C): Approximately 100

Melting Point(°C): Approximately 0

Vapor Pressure: Not Applicable.

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Section 10: Stability and Reactivity

Chemical Stability: Stable under normal conditions of use and storage.

Incompatibility: Strong oxidizing agents, alkalis, acids, phenols, urea.

Hazardous Decomposition Products: Acrid and irritating fumes, including toxic formaldehyde and oxides of carbon, when heated to decomposition.

Hazardous Polymerization: Will not occur.

Section 11. Toxicological Information

LD50, Oral, Rat: (Formaldehyde) 100 mg/kg, (Acetic Acid): 3310 mg/kg, details of toxic effects not reported other than lethal dose value; (Picric Acid) 200 mg/kg, behavioral and sense organ (eye) effects noted. LC50, Inhalation, Rat: (Formaldehyde) 203 mg/m³, peripheral nerve and behavioral effects noted. Formaldehyde is investigated as a tumorigen.

Section 12. Ecological Information

Ecotoxicological Information: Formaldehyde has high acute and chronic toxicity to aquatic life.

Chemical Fate Information: Formaldehyde is slightly persistent in water, with a half-life of between 2 to 20 days. Formaldehyde is expected to readily biodegrade when released into water.

Section 13. Disposal Considerations

Cover spill with a 1:1:1 mixture of Sodium Carbonate, clay cat litter and sand. Scoop into container and transport to fume hood. Add the mixture to cold water (about 10 mL water for each 1 mL of Formaldehyde solution). Slowly add household bleach (2.5 mL bleach for each 1 mL of Formaldehyde solution). Allow to stand for 20 minutes. Decant liquid to drain. Flush with water. Treat solid residue as normal refuse. Always dispose of in accordance with local, state and federal regulations.

Section 14. Transport Information

Part Numbers: 1120-1, 1120-16, 1120-32, 1120-5, 1120-55

D.O.T. Shipping Name: Corrosive Liquid, Acidic, Organic, n.o.s., (Formaldehyde and Acetic Acid)

D.O.T. Hazard Class: 8

U.N. / N.A. Number: UN3265

Packing Group: III

D.O.T. Label: 8



Section 15. Regulatory Information (Not meant to be all inclusive - selected regulation represented)

OSHA Status: These items meet the OSHA Hazard Communication Standard (29 CFR 1910.1200) definition of a hazardous material.

TSCA Status: All components of this solution are listed on the TSCA Inventory or are mixtures (hydrates) of items listed on the TSCA Inventory.

Sara Title III:

Section 302 Extremely Hazardous Substances: Not Applicable.

Section 311/312 Hazardous Categories: Acute, Chronic: Yes

Fire, Pressure, Reactivity: No

Section 313 Toxic Chemicals: Not Applicable.

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California: Contains an ingredient (Formaldehyde) known to the state of California to cause cancer.

Pennsylvania: Picric Acid (2,4,6-Trinitrophenol) is listed as an Environmental Hazard on the state's Hazardous Substances List. Acetic Acid is listed as an Environmental Hazard on the state's Hazardous Substances List. Formaldehyde is listed as both Special and Environmental Hazards on the state's Hazardous Substances List.

RCRA Status: U122

CERCLA Reportable Quantity: Acetic Acid - 5,000 pounds. Formaldehyde - 100 pounds.

WHMIS: E: Corrosive Material. D-1A: Poisonous and Infectious Material. Materials causing immediate and serious toxic effects - Very Toxic Material. D-2A: Poisonous and Infectious Material. Materials causing other toxic effects - Very Toxic Material.



Section 16. Other Information

NFPA Ratings:

Health: 2

Flammability: 1

Reactivity: 0

Special Notice Key:None

HMIS Ratings:

Health: 2

Flammability: 1

Reactivity: 0

Protective Equipment:B (Protective Eyewear, Gloves)

Rev 1, 10-09-2001: Reformatted to electronic data format.

Rev 2, 01-20-2006: Reviewed and approved for distribution; (Section 15) revised WHMIS information.

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.

