

Safety Data Sheet

BOUIN'S FLUID

Section 1 - Chemical Product and Company Identification

SDS Name: Bouin'S Fluid

Catalog Numbers: F-362-9A, F-367-1, F-383-4, F-40, SO-306.

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

HEALTH HAZARDS

H301-Acute Oral Toxicity: 3
H332-Acute Inhalation toxicity: 4
H315-Skin Corrosion/Skin Irritation: 2
H319-Eye damage/Irritation: 2A
H334-Respiratory Sensitization: 1B
H317-Skin Dermal Sensitization: 1B
H341-Germ Cell Mutagenicity: 2
H350-Carcinogenicity: 1A
H361-Reproductive Toxicity: 2
H371-Specific Target Organ Toxicity: 2

PHYSICAL HAZARDS

H290-Corrosive to Metals: 1

ENVIRONMENTAL HAZARDS

Not classified

Pictograms or Hazard symbols and Hazard statement.



May be corrosive to metals



Danger: Toxic if swallowed.



Causes severe eye irritation.



Hamful if inhaled.
Causes skin irritation.
May cause allergic skin reaction.



May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Chronic

Oral, Human – woman: May cause reproductive and fetal effects.

Prolonged exposure may cause liver and kidney damage.

May cause cancer.

Precautionary Statement Prevention

H301

P270 Do not eat, drink, or smoke when using this product.

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER.

H315

P280 Wear protective gloves, clothing, and eye and face protection.

P302 + P352 If on skin, wash with plenty of water. Remove contact lenses if present and easy to do so. Continue rinsing.

P332 + P313 If skin irritation occurs, get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

H317

P272 Contaminated work clothing should not be allowed out of the work place.

P333+P313 IF ON SKIN: Wash with plenty of soap and water.

P363 Wash contaminated clothing before reuse.

H319

P305 + P351 + P338 If in eyes, rinse cautiously with water for several minutes.

P337 + P313 If eye irritation persists, get medical advice/attention.

P285 In case of inadequate ventilation, wear respiratory protection.

P304+P341 IF INHALED: if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P342+P311 if experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

H332

P261 Avoid breathing fumes/mist/vapors.

P27 P304 + P340 If inhaled, remove person to fresh air and keep comfortable for breathing.

1 Use only outdoors or in a well-ventilated area.

P312 Call a physician if you feel unwell.

H341+H361

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P281 Use personal protective equipment as required.

P308 + P313 If exposed or concerned, get medical advice/attention.

P405 Store locked up.

H350

P201 Obtain special instructions before use

P202 Do not handle until all safety precautions have been read and understood.

P313 If skin irritation occurs, get medical advice/attention.

H371

P260 Do not breathe fume/gas/mist/vapors.

P270 Do not eat, drink, or smoke when using this product.

P309+P311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician

H290

P234-Keep only in original container.

P390-Absorb spillage to prevent material damage.

P406-Store in corrosive resistant/container with a resistant inner liner.

DANGER! May cause allergy or asthma symptoms or breathing difficulties if inhaled. Do not breathe vapors; use with adequate ventilation. **May cause cancer.** Wear protective gloves/protective clothing/eye protection/face protection. **Toxic if swallowed.** Contains methanol; not for internal or external use. **WARNING! Causes skin irritation and severe eye irritation.** Wash thoroughly after handling. **May cause an allergic skin reaction.** Wear protective gloves. **May be corrosive to metal . Chronic: May cause reproductive and fetal effects.** Do not handle until all safety precautions have been read and understood. **Target Organs:** Kidneys and liver.

Section 3 - Composition, Information on Ingredients

| CAS# | Chemical Name | Percent |
|-----------|---------------------|----------|
| 88-89-1 | Picric Acid | 0.9 w/v |
| 50-00-0 | Formaldehyde | 23.8 v/v |
| 64-19-7 | Glacial Acetic Acid | 4.8 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: 2; Flammability; Instability: 0

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s):

Wear protective gear. Eliminates all sources of ignition.

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: Solution

Appearance: yellow

Odor: Acetic acid-formaldehyde

pH: 1.20-1.60

Vapor Pressure: N/A

Vapor Density: N/A

Evaporation Rate: N/A

Viscosity: N/A

Boiling Point: 78 deg C

Solubility: Soluble

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, ignition sources, excess heat, oxidizers.

Incompatibilities with Other Materials: Strong oxidizing agents, alkali metals, ammonia, hydrazine, peroxides, sodium, acid anhydrides, calcium hypochlorite, chromyl chloride, nitrosyl perchlorate, bromine pentafluoride, perchloric acid, silver nitrate, mercuric nitrate, potassium-tert-butoxide, magnesium perchlorate, acid chlorides, platinum, uranium hexafluoride, silver oxide, iodine heptafluoride, acetyl bromide, disulfuryl difluoride, tetrachlorosilane + water, acetyl chloride, permanganic acid, ruthenium (VIII) oxide, uranyl perchlorate, potassium dioxide.

Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:

LD50/LC50:

CAS# 64-19-7:

Oral rat LD50: 3310 mg/kg.

Skin: rabbit LD50: 1.06 g/kg

Inhalation mouse LC50: 5620 ppm/1-hr; investigated as a mutagen, reproductive effector.

Carcinogenicity:

CAS# 64-19-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 50-00-0

Mouse oral: 260 mg/kg

Rabbit skin: 64000/ 4 H

Mouse inhalation: 64000/ 8 hours.

Solution Carcinogenicity:

Formaldehyde is listed by ACGIH, IARC, NTP and CA Prop 65.

Chronic Effects on Humans:

CARCINOGENIC EFFECTS: Classified A2 (Suspected for human.) by ACGIH, 1 (Carcinogenic to humans.) by IARC [Formaldehyde]. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. [Formaldehyde]. Mutagenic for bacteria and/or yeast. [Formaldehyde].

Mutagenic for mammalian somatic cells. [Methyl alcohol]. Mutagenic for bacteria and/or yeast. [Methyl alcohol]. TERATOGENIC EFFECTS: Classified POSSIBLE for human [Methyl alcohol]. DEVELOPMENTAL TOXICITY: Not available May cause damage to the following organs: kidneys, liver, central nervous system (CNS).

CAS# 88-89-1

Routes of Entry: Absorbed through skin. Inhalation. Ingestion. Toxicity to Animals: Acute oral toxicity (LD50): 200 mg/kg [Rat].

Chronic Effects on Humans:

MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast. Causes damage to the following organs: mucous membranes. May cause damage to the following organs: blood, kidneys, liver.

Section 12 - Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation: Possibly hazardous short/long term degradation products are to be expected. Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself. Special Remarks on the Products of Biodegradation: Not available

Section 13 - Disposal Considerations

Appropriate method of disposal of substance or preparation:

Handled as hazardous waste and sent to an RCRA approved incinerator or disposed in an RCRA approved wasted facility.

Section 14 – Transport Information

DOT

| | US DOT | IATA | RID/ADR | IMO | Canada TDG |
|-----------------------|--|-------------|----------------|------------|---------------------------|
| Shipping Name: | CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. | | | | No information available. |
| Hazard Class: | 8 | | | | |
| UN Number: | UN3265 | | | | |
| Packing Group: | III | | | | |

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 MSDS contains all the information required by the CPR.

California Prop 65

WARNING: Formaldehyde, is a chemical known to the state of California to cause cancer.

European/International Regulations**European Labeling in Accordance with EC Directives****Hazard Symbols:**

C

Risk Phrases:

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed

R36/38 Irritating to eyes and skin.

R61 May cause harm to the unborn child

Safety Phrases:

S20/21 When using do not eat, drink or smoke

S2 Keep out of the reach of children.

S 33 Take precautionary measures against static discharges.

S 7 Keep container tightly closed.

S 9 Keep container in a well-ventilated place

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| Section 16 - Additional Information |
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MSDS Creation Date: 3/20/13

Revision #1. 1/3/14

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