MEDICAL CHEMICAL CORPORATION
SINCE 1954

SDS for Bouin's Fixative
Catalog # 456A

Medical Chemical Corp.
19430 Van Ness Ave.
Torrance, CA 90501
Customer Service: Phone (310)787-6800
FAX (310)787-4464
CHEMTREC Emergency Response Telephone Number: (800)424-9300
Note: The CHEMTREC phone number is only for emergencies involving spills, leaks, fire, exposure or accident. Please direct all other inquiries to our customer service phone number.

Section I - Product Identification

An aqueous solution of formaldehyde, acetic acid, methanol and picric acid.

Section II - Hazards Identification

Warning. Harmful if swallowed. Wash thoroughly after handling. Do not eat drink or smoke while using this product. If swallowed, rinse mouth with water and call a poison center.

Safety Ratings

Health: Hazardous *Flammability:* None *Reactivity:* Slight *Contact:* Slight
Recommended safety equipment: safety goggles, lab coat and proper gloves
Storage: General storage
NFPA Ratings
Health = 2 Flammability = 0 Reactivity = 1



Potential Health Effects

Inhalation of formaldehyde can lead to congestion, coughing and shortness of breath. Frequent skin contact leads to drying and scaling. Ingestion will damage the throat, stomach and intestines resulting in nausea, vomiting, abdominal pain and diarrhea. Lowered blood pressure, spontaneous abortion, loss of consciousness and kidney damage may result. Inhalation of high concentrations of vapor (14 ppm) have caused cancer in laboratory animals. Genetic damage in bacteria has been demonstrated.

Inhalation: Irritating to respiratory tract. May cause asthma like symptoms in sensitive individuals.

Ingestion: Can cause irritation and chemical burns to the mouth, throat, esophagus and stomach. Can also cause nausea, vomiting, diarrhea, etc.

Skin contact: May cause skin irritation or aggravation of existing dermatitis. May cause temporary discoloration of the skin.

Eye contact: Vapors may cause stinging sensation and tearing. Solution contact can cause corneal injury which can cause visual impairment if not dealt with immediately.

Aggravation of preexisting conditions: May aggravate preexisting asthma and other lung diseases.

Section III - Composition/Information on Components

Ingredients	*CAS#*	*OSHA Pel*	*ACGIH TLV*	*Other Limits*	*%*
Formaldehyde	50-00-0	0.75 ppm	1 ppm STEL		10% w/v
Methanol	67-56-1	200 ppm	200 ppm STEL		1% v/v
Acetic acid	64-19-7	25 mg/m3	25 mg/m3 TWA		5.2% w/v
Picric acid	88-89-1	0.1 mg/m3	0.1 mg/m3 TWA		0.75% w/v

Section IV - First Aid Measures

Inhalation: Remove from source of exposure and get medical attention for any breathing difficulty.

Ingestion: Drink large quantities of fluids and call a physician immediately. Administer activated charcoal or other adsorbent if available.

Skin Contact: Wash affected area with soap and water. Get medical advice if irritation develops.

Eye Contact: Immediately flush thoroughly with running water for at least 15 minutes. Get immediate medical advice.

Section V - Fire Fighting Measures

Flash point: Not applicable.

Flammable Limits: Not applicable.

Fire: Not normally a fire Hazard.

Explosion: Not Normally an explosion hazards. However, dry picric acid and its salts are explosive. Lead picrate (formed by disposing of picric acid in lead lined plumbing) has caused fatal laboratory explosions.

Fire Extinguishing Media: Any means suitable for surrounding fire.

Special information: Pyrolysis will release corrosive oxides.

Section VI - Accidental Release Measures

Wear appropriate protective gear such as gloves, apron and protective eye wear. Absorb with a suitable absorbent (such as paper towels) and store in a suitable container for disposal. Large spills may be neutralized with formalin neutralizers.

Section VII - Handling and Storage

Store in a closed container at controlled room temperature, 59 ^{o}F to 86 ^{o}F (15 ^{o}C to 30 ^{o}C).

Section VIII - Exposure Control/Personal Protection

Airborne Exposure Limits: See section III.

Ventilation System: Use appropriate ventilation. Laboratory fume hoods or similar apparatus are recommended for handling formaldehyde solutions. When required, Refer to the ACGIH document, "Industrial Ventilation, a Manual of Recommended Practices" for details about ventilation.

Personal Respirator: Required if threshold limit value for formaldehyde is exceeded. In case of emergency, or when exposure levels are unknown, use a half face or full face respirator with organic vapor cartridges.

Skin protection: Chemical resistant gloves are recommended.

Eye Protection: Laboratory safety goggles, safety glasses or face shield are required.

People who regularly work with formaldehyde are required to have regular medical surveillance.

Section IX - Physical and Chemical Properties

Boiling Point: 100 ^{o}C
Vapor pressure (mm Hg): 18 @ 20 ^{o}C
Vapor Density (air = 1): 0.6
Density: About 1.03 g/ml
Evaporation Rate (water = 1): 1
Solubility: Infinitely miscible with water
Appearance and odor: A clear yellow liquid with the odors of vinegar and formaldehyde.

Section X - Stability and Reactivity

Stability: Freezes at low temperature.

Hazardous Decomposition Products: Nothing unusual.

Hazardous polymerization: Will not occur.

Incompatibilities: Nothing unusual.

Conditions to avoid: Excessive cold/heat and light.

Section XI - Toxicological Information

Toxicity: The chronic toxicity of this product is unknown but may include sensitization in sensitive individuals. The manufacturer is unaware of any target organ toxicity. Formaldehyde is a known human carcinogen

Cancer lists

Ingredient	*Known Carcinogenicity?*	*Anticipated?*	*IARC Category*
Formaldehyde	yes	yes	2A
Acetic acid	no	no	none
Picric acid	no	no	none

Section XII - Ecological Information

Environmental Fate: Biodegradable.
Environmental Toxicity: Formaldehyde is expected to be toxic to fish.

Section XIII - Disposal Considerations

Local governments may restrict the amounts of picric acid that may be flushed down the drain. Also, picric acid forms explosive metal salts with most metals and should not be flushed down drains that have metal plumbing. Dispose of contents and container in accordance with all government regulations.

Section XIV - Transportation Information

Not regulated.

Section XV - Regulatory Information

Chemical Inventory Status

Ingredient	TSCA	EC
Formaldehyde	Yes	Yes
Acetic acid	Yes	Yes
Picric acid	Yes	Yes

Federal, State and International Regulations

	SARA 302		SARA 313		RCRA	TSCA	
Ingredient	RQ	TPQ	List	Category	261.33	8(D)	Ca. Prop 65
Formaldehyde	100	500	Yes	No	U122	No	Yes
Acetic acid	No	No	No	No	No	No	No
Picric acid	No	No	Yes	No	No	No	No

Ingredient	Chemical Weapons Convention	TSCA 12(b)	CDTA
Formaldehyde	No	No	No
Acetic acid	No	No	No
Picric acid	No	No	No

SARA 311/312	Acute?	Chronic?
Formaldehyde	Yes	Yes
Acetic acid	Yes	No
Picric acid	Yes	Yes

Section - XVI Other Information

This information is believed to be correct but is not waranteed as such, nor does it purport to be all inclusive.

Revision Date: Jan. 19, 2018