

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Bouin's Fixative Solution

**SYNONYMS:** Bouin's solution, Bouin's fixative

**CATALOG CODES:** VBF

**MANUFACTURER:** Volu-Sol

**ADDRESS:** 5095 West 2100 South  
Salt Lake City, UT 84120

**EMERGENCY PHONE:** (800) 535-5053

**OTHER CALLS:** (801) 974-9474

**FAX:** (801) 974-9553

**CHEMICAL FAMILY:** -

**CHEMICAL FORMULA:** -

**PREPARED BY:** Volu-Sol

**RECOMMENDED USE:** Laboratory chemical

**RESTRICTIONS ON USE:** Use as recommended

## SECTION 2: HAZARD(S) IDENTIFICATION

## EMERGENCY OVERVIEW:

**GHS Classification:**

|                        |               |
|------------------------|---------------|
| Acute Toxicity, Oral   | (Category 4)  |
| Skin Corrosion         | (Category 1A) |
| Serious eye damage     | (Category 1)  |
| Skin sensitisation     | (Category 1)  |
| Germ cell mutagenicity | (Category 2)  |
| Carcinogenicity        | (Category 1A) |

## GHS LABEL ELEMENTS:

## Pictogram:



## Signal Word:

Danger

## Hazard Statement(s):

H302 Harmful if swallowed

H314 Causes severe skin burns and eye damage

H317 May cause an allergic skin reaction

H318 Causes serious eye damage

H341 Suspected of causing genetic defects

H350 May cause cancer

## Precautionary Statement(s):

P201 Obtain special instructions before use

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

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray

P264 Wash skin thoroughly after handling

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

P272 Contaminated work clothing should not be allowed out of the workplace

P280 Wear protective gloves/ eye protection/ face protection

P301+P312+P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

P304+P340+P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician

P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician

P308+P313 IF exposed or concerned: Get medical advice/ attention

P333+P313 If skin irritation or rash occurs: Get medical advice/ attention

P363 Wash contaminated clothing before reuse

P405 Store locked up

P501 Dispose of contents/container to an approved waste disposal plant

**OTHER HAZARDS:** -

## HMIS Classification:

**Health hazard:** 3

**Chronic health hazard:** -

**Flammability:** 0

**Physical hazards:** 0

## NFPA Rating:

**Health hazard:** 3

**Fire:** 0

**Reactivity Hazard:** 0

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| INGREDIENT            | CAS NO.<br>EC-NO.<br>Index-NO.       |
|-----------------------|--------------------------------------|
| Formaldehyde (5-<10%) | 50-00-0<br>200-001-8<br>605-001-00-5 |
| Acetic acid (5-10%)   | 64-19-7<br>200-580-7<br>607-002-00-6 |
| Methanol (2-3%)       | 67-56-1<br>200-659-6<br>603-001-00-X |
| Picric acid (0.1-1%)  | 88-89-1<br>201-865-9<br>609-009-00-X |

## SECTION 4: FIRST AID MEASURES

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician

**INGESTION:** If swallowed, vomiting may occur spontaneously, but DO NOT INDUCE. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician

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

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

## SECTION 5: FIRE-FIGHTING MEASURES

**FLAMMABLE LIMITS IN AIR:**

**Percentage by Volume**

Upper: -%

Lower: -%

**FLASH POINT:** -

**AUTOIGNITION TEMPERATURE:** -

**EXTINGUISHING MEDIA:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

**FIRE FIGHTING PROCEDURES:** In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode

**FIRE AND EXPLOSION HAZARDS:** -

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**ACCIDENTAL RELEASE MEASURES:** Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal

## SECTION 7: HANDLING AND STORAGE

**HANDLING AND STORAGE:** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. 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

**INCOMPATIBILITIES:** Strong bases, oxidizing agents, strong oxidizing agents, metals, amines, strong acids, acid anhydrides

#### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**EXPOSURE LIMITS:** Reported in a time-weighted average (TWA)

| Component    | CAS-No. | Reference | OSHA       |                   | ACGIH      |                   |
|--------------|---------|-----------|------------|-------------------|------------|-------------------|
|              |         |           | ppm        | mg/m <sup>3</sup> | ppm        | mg/m <sup>3</sup> |
| Formaldehyde | 50-00-0 |           | .75<br>PEL |                   | .3<br>TLV  |                   |
| Acetic acid  | 64-19-7 |           | 10<br>PEL  | 25<br>PEL         | 10<br>TLV  |                   |
| Methanol     | 67-56-1 |           | 200<br>PEL | 260<br>PEL        | 200<br>TLV | 260<br>TLV        |
| Picric Acid  | 88-89-1 |           |            | .10<br>PEL        |            | .10<br>TLV        |

**VENTILATION SYSTEM:** Local and/or general exhaust is recommended to keep exposure below limits. Local exhaust ventilation is preferred for control of the emissions at its source, preventing dispersion into the general work area. Please refer to the ACGIH document, *Industrial Ventilation: A Manual of Recommended Practices*, for details

**PERSONAL RESPIRATORS:** If exposure limit is exceeded and engineering controls are not feasible, a half-face organic vapour respirator may be worn for up to ten times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier; whichever is lowest. A full-face piece organic vapour respirator may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-face, positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres

**SKIN PROTECTION:** Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Use proper glove removal technique to avoid skin contact with this product. Wash and dry hands

**EYE PROTECTION:** Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU)

#### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE:** liquid  
**ODOR:** -  
**SOLUBILITY:** -  
**pH:** -  
**BOILING POINT:** -  
**MELTING POINT:** -  
**VAPOR PRESSURE:** -  
**SPECIFIC GRAVITY:** -  
**MOLECULAR WEIGHT:** -  
**DENSITY:** -  
**VISCOSITY:** -  
**REFRACTIVE INDEX:** -

#### SECTION 10: STABILITY AND REACTIVITY

**CHEMICAL STABILITY:** Stable under recommended conditions of use and storage

**CONDITIONS TO AVOID:** No data available

**HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:** No data available

#### SECTION 11: TOXICOLOGICAL INFORMATION

##### TOXICOLOGICAL INFORMATION:

**Acute Toxicity:** No data available  
**Skin/Eye Irritation:** No data available  
**Carcinogenicity: IARC:** 1-Group 1: Carcinogenetic to humans (Formaldehyde)  
**NTP:** Known to be human carcinogen (Formaldehyde)  
**OSHA:** OSHA specifically regulated carcinogen (Formaldehyde)

**ROUTES OF ENTRY:** Inhalation/Ingestion/Skin

#### SECTION 12: ECOLOGICAL INFORMATION

##### ECOLOGICAL INFORMATION:

**Toxicity:** No data available  
**Persistence and degradability:** No data available

**Mobility in soil:** No data available

**PBT/vPvB Results:** PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

#### SECTION 13: DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL METHOD:** Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Dispose of as unused product

#### SECTION 14: TRANSPORT INFORMATION

| US DOT        | IATA | IMDG/IMO |
|---------------|------|----------|
| Not regulated |      |          |

#### SECTION 15: REGULATORY INFORMATION

|                             |  |
|-----------------------------|--|
| <b>SARA 302</b>             | 50-00-0  |
| <b>SARA 313</b>             | 50-00-0, 67-56-1   |
| <b>SARA 311/312 Hazards</b> | Acute Health Hazard, Chronic Health Hazard   |
| <b>State</b>                | Right to know lists:<br>MA: 50-00-0, 67-56-1, 64-19-7<br>PA: 50-00-0, 67-56-1, 7732-18-5, 64-19-7, 88-89-1<br>NJ: 50-00-0, 67-56-1, 7732-18-5, 64-19-7<br>California Prop. 65 Components: 50-00-0, 67-56-1 |

#### SECTION 16: OTHER INFORMATION

**Disclaimer:** The information is provided without any representation or warranty, express or implied, regarding the accuracy or correctness. The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with the handling, storage, use, or disposal of the product.