

Part Number: 1208

1. PRODUCT AND COMPANY IDENTIFICATION

- 1.1 Product Name:** **Hollande Fixative**
Part Number: 1208
CAS-No.: Not applicable
SDS Number: 3240
- 1.2 Recommended Use:** Laboratory Chemicals
- 1.3 Company:** Newcomer Supply
 2505 Parview Road
 Middleton, WI 53562 USA
- Telephone:** 1-800-383-7799
Fax: 1-608-831-0866
Website: www.newcomersupply.com
Email: newly@newcomersupply.com

24 HOUR EMERGENCY CONTACT
 CALL CHEMTREC: 1-800-424-9300
 Contact CHEMTREC only in the event of
 an emergency involving a chemical spill,
 leak, fire, exposure or other accident.

2. HAZARD(S) IDENTIFICATION
2.1 Classification of the substance or mixture

GHS Classification, (in accordance with 29 CFR1910.1200)
 Flammable liquid, Category 4
 Acute toxicity (oral), Category 3
 Acute toxicity (dermal), Category 3
 Acute toxicity (inhalation), Category 1
 Skin corrosion, Category 1
 Serious eye damage, Category 1
 Skin sensitisation, Category 1
 Respiratory sensitization, Category 1
 Carcinogenicity, Category 1A
 Specific Target Organ Toxicity – Single exposure, Category 1
 Specific Target Organ Toxicity – Repeated exposure, Category 1
 Reproductive toxicity, Category 1B

2.2 GHS Label elements

Signal Word DANGER

Pictogram



Hazard Statement(s):

- Combustible liquid
- Toxic if swallowed
- Toxic in contact with skin
- Fatal if inhaled
- Causes severe skin burns and eye damage
- May cause an allergic skin reaction
- May cause allergy or asthma symptoms or breathing difficulties if inhaled
- Suspected of causing cancer
- Causes damage to organs
- Causes damage to organs through prolonged or repeated exposure
- May damage fertility or the unborn child

Precautionary Statement(s):

Prevention:

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Keep away from heat/sparks/open flames/hot surfaces – No smoking.
- Do not breathe dust/fume/gas/mist/vapours/spray.

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- In case of inadequate ventilation wear respiratory protection.
- Use only outdoors or in a well-ventilated area.
- Wash skin thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Contaminated work clothing should not be allowed out of the workplace.
- Wear protective gloves/protective clothing/eye protection/face protection.

Response:

- In case of fire use carbon dioxide, dry chemical or alcohol-resistant foam.
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- Wash contaminated clothing before reuse.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- Specific treatment is urgent: see first aid measures in section 4.
- Immediately call a POISON CENTER or doctor/physician.

Storage:

- Store in a well ventilated place. Keep cool.
- Keep container tightly closed.
- Store locked up.

Disposal:

- Dispose of contents/ container to an approved waste disposal plant.

- 2.3 Description of any hazards not otherwise classified** None
- 2.4 >1% of mixture with unknown acute toxicity** None

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

Hazardous Components

| Component | | Concentration |
|-----------|---------------------|---------------|
| Name | Formaldehyde | |
| CAS-No. | 50-00-0 | 8-9% |
| Name | Methyl Alcohol | |
| CAS-No. | 67-56-1 | <1% |
| Name | Cupric Acetate | |
| CAS-No. | 142-71-2 | 2-3% |
| Name | Glacial Acetic Acid | |
| CAS-No. | 64-19-7 | 3-4% |
| Name | Picric Acid | |
| CAS-No. | 88-89-1 | 3-4% |

4. FIRST-AID MEASURES

4.1 Description of necessary measures

Inhalation (breathing)

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Skin Contact

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor/physician.

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Eye Contact

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.

Ingestion (swallowed)

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

4.2 Most important symptoms and or effects, acute and delayed

The most important symptoms/effects are presented in Section 2 and or Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. FIRE-FIGHTING MEASURES
5.1 Suitable extinguishing media

Carbon dioxide, dry chemical, water spray, alcohol-resistant foam.

5.2 Specific hazards arising from the substance or mixture

No data available

5.3 Protective equipment and precautions for fire-fighters

Wear a positive-pressure self-contained breathing apparatus if necessary. Wear chemical resistant clothing as recommended by clothing manufacturer.

NFPA Rating

| | | |
|-----------|-----------|------------|
| Health | Fire | Reactivity |
| hazard: 2 | hazard: 1 | hazard: 0 |

6. ACCIDENTAL RELEASE MEASURES
6.1 Personal precautions, protective equipment and emergency procedures

Apply personal protective equipment (see Section 8). Use in a properly ventilated area. Avoid breathing vapors. Avoid skin contact. Avoid eye contact. Wash hands after use. In case of large spill, remove personnel to a safe area. Keep product away from heat, flame, ignition sources, and reactive materials. Avoid accumulation of vapor to form explosive concentration. Pay particular attention to low areas where vapor accumulates more easily.

6.2 Methods and material for containment and cleaning up

Apply personal protective equipment (see Section 8). Ensure proper ventilation. Contain spill. Prevent further leakage if possible and safe to do so. Evacuate area and limit access. Prevent entry of material into sewage drains and confined areas. Dispose of any contaminated materials according to local regulations. Eliminate sources of ignition.

7. HANDLING AND STORAGE
7.1 Precautions for safe handling

Keep away from heat/sparks/open flames/hot surfaces – No smoking. Do not breathe dust/fume/gas/mist/vapours/spray. Wear protective gloves/protective clothing/eye protection/face protection.

7.2 Conditions for safe storage, including any incompatibilities

Refer to Section 2.2 for proper storage temperature. Store the tightly closed container in a cool, dry, well-ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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8.1 Control Parameters

Components with limit values that require monitoring at the workplace

| Component | CAS-No. | Regulatory | Value | Parameters |
|--------------|---------|------------|-------|-----------------------------------|
| Formaldehyde | 50-00-0 | OSHA PEL | TWA | 0.75 ppm |
| | | OSHA PEL | STEL | 2 ppm |
| | | ACGIH TLV | C | 0.3 ppm (0.37 mg/m ³) |
| | | NIOSH REL | TWA | 0.016 ppm |
| | | NIOSH REL | C | 0.1 ppm 15-minute |

| Component | CAS-No. | Regulatory | Value | Parameters |
|----------------|---------|------------|-------|----------------------------------|
| Methyl Alcohol | 67-56-1 | OSHA PEL | TWA | 200 ppm (260 mg/m ³) |
| | | ACGIH TLV | TWA | 200 ppm (262 mg/m ³) |
| | | ACGIH TLV | STEL | 50 ppm (328 mg/m ³) |
| | | NIOSH REL | TWA | 200 ppm (260 mg/m ³) |
| | | NIOSH REL | STEL | 250 ppm (325 mg/m ³) |

| Component | CAS-No. | Regulatory | Value | Parameters |
|---------------------|---------|------------|-------|--------------------------------|
| Glacial Acetic Acid | 64-19-7 | OSHA PEL | TWA | 10 ppm (25 mg/m ³) |
| | | ACGIH TLV | TWA | 10 ppm (25 mg/m ³) |
| | | ACGIH TLV | STEL | 15 ppm (37 mg/m ³) |
| | | NIOSH REL | TWA | 10 ppm (25 mg/m ³) |
| | | NIOSH REL | STEL | 15 ppm (37 mg/m ³) |

| Component | CAS-No. | Regulatory | Value | Parameters |
|----------------|----------|------------|-------|--|
| Cupric Acetate | 142-71-2 | OSHA PEL | TWA | 1 mg/m ³ (Copper dusts and mists) |
| | | OSHA PEL | TWA | 0.1 mg/m ³ (Copper fumes) |
| | | ACGIH TLV | TWA | 1 mg/m ³ (Copper dusts and mists) |
| | | ACGIH TLV | TWA | 0.1 mg/m ³ (Copper fumes) |
| | | NIOSH REL | TWA | 1 mg/m ³ (Copper dusts and mists) |
| | | NIOSH REL | TWA | 0.2 mg/m ³ (Copper fumes) |

8.2 Exposure Controls
Appropriate engineering controls

Use in a properly ventilated area. Remove/wash before reuse contaminated clothing. Wash hands upon exiting work premises. Use product in an appropriately designated fume hood. Take measures to keep concentrations below acceptable limits.

8.3 Personal Protective Equipment
Eye/Face protection

Wear chemical safety goggles and/or a full face shield if splashing is possible. Keep eye wash fountain nearby.

Skin Protection

Wear chemical-resistant gloves. Gloves should be resistant to components of product. Refer to glove manufacturer for appropriate type and glove thickness.

Body Protection

No data available

Respiratory Protection

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Respirators should only be used if the employer has implemented a written program that takes into account workplace conditions, requirements for worker training, respirator fit testing, and medical exams, as described in the OSHA Respiratory Protection Standard (29 CFR 1910.134).

Formaldehyde: Where the potential exists for exposure over 0.016 ppm: use a NIOSH approved supplied-air respirator with a full facepiece operated in a pressure-demand or other positive-pressure mode. For increased protection use in combination with an auxiliary self-contained breathing apparatus or an emergency escape air cylinder.

Exposure to 20 ppm is immediately dangerous to life and health. If the possibility of exposure above 20 ppm exists, use a NIOSH approved self-contained breathing apparatus with a full facepiece operated in a pressure-demand or other positive-pressure mode equipped with an emergency escape air cylinder. In case of emergency, entry into unknown concentrations, or escape, wear a self-contained positive-pressure breathing apparatus.

Other Information

None

9. PHYSICAL AND CHEMICAL PROPERTIES
9.1 Information on basic physical and chemical properties

| | |
|---|------------------------------|
| Physical state | Yellow, translucent solution |
| Odor | No data available |
| Odor threshold | No data available |
| pH | No data available |
| Melting point/freezing point | No data available |
| Initial boiling point and boiling range | No data available |
| Flash point | No data available |
| Evaporation rate | No data available |
| Flammability (solid, gas) | No data available |
| Upper flammability or explosive limits | No data available |
| Lower flammability or explosive limits | No data available |
| Vapor pressure | No data available |
| Vapor density | No data available |
| Relative density | No data available |
| Solubility(ies) | Completely water soluble |
| Partition coefficient: n-octanol/water | No data available |
| Auto-ignition temperature | No data available |
| Decomposition temperature | No data available |
| Viscosity | No data available |

10. STABILITY AND REACTIVITY
10.1 Reactivity

No data available

10.2 Chemical stability

Stable in a closed container within label-specified storage temperature and expiration date.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Heat, sparks, open flame, and ignition sources.

10.5 Incompatible materials

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Formaldehyde reacts violently with nitrogen oxides; oxidizing agents (such as perchlorates, peroxides, permanganates, chlorates, nitrates, chlorine, bromine and fluorine); mixtures of perchloric acid and aniline; nitromethane; magnesium carbonate; and hydrogen peroxide. Formaldehyde reacts with phenol and hydrogen chloride to form toxic bis(chloromethyl) ether. Formaldehyde is not compatible with strong acids (such as hydrochloric, sulfuric and nitric); strong bases (such as sodium hydroxide and potassium hydroxide); iodine; iron; silver; isocyanates; amines; anhydrides; and liquid oxygen.

10.6 Hazardous decomposition products

No data available

11. TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects****Inhalation exposure**

Formaldehyde: Difficulty in breathing was experienced at 10 to 20 ppm. Upper airway irritation and increased nasal airway resistance were reported at 0.1 to 25 ppm and lower airway and chronic pulmonary obstruction at 5 to 30 ppm. Inhaling formaldehyde can irritate the lungs. Higher exposures may cause a build-up of fluid in the lungs (pulmonary edema), a medical emergency. Glacial Acetic Acid: (Human data) Marked irritation of the nose, and upper respiratory tract which could not be tolerated for more than 3 minutes was noted at 816 to 1,226 ppm.

Oral exposure

Formaldehyde: Most subjects experience irritation of the throat at 1 to 3 ppm; many subjects cannot tolerate prolonged exposures to 4 to 5 ppm

Dermal exposure

No data available

Skin corrosion/irritation

Formaldehyde, glacial acetic acid, and cupric acetate are corrosive and contact can severely irritate and burn the skin.

Serious eye damage/irritation

Formaldehyde: 10 to 20 ppm produces almost immediate eye irritation. Most subjects experience irritation of the eyes, nose, and throat at 1 to 3 ppm; many subjects cannot tolerate prolonged exposures to 4 to 5 ppm. Glacial acetic acid and cupric acetate can severely irritate and burn the eyes.

Respiratory or skin sensitization

It has been estimated that exposure for 5 to 10 minutes to 50 to 100 ppm might cause serious injury to the lower respiratory passages. Formaldehyde may cause a skin allergy and an asthma-like allergy. Formaldehyde may cause an asthma-like allergy. Future exposure can cause asthma attacks with shortness of breath, wheezing, coughing, and/or chest tightness. It has been stated that repeated exposures to high concentrations of glacial acetic acid may produce respiratory tract irritation with pharyngeal edema and chronic bronchitis.

Germ Cell mutagenicity

No data available

Reproductive toxicity

There is limited evidence that formaldehyde may damage the developing fetus and affect female fertility.

Specific target organ toxicity - single exposure

Cupric acetate may cause nose and throat irritation upon inhalation.

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Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Acute toxicity

Formaldehyde:

LD50 rat oral 100 mg/kg

LD50 rat dermal 270 mg/kg

LC50 rat inhalation 0.48 mg/l/4 hours

Picric Acid:

LD50 rat 200 mg/kg

Glacial Acetic Acid:

LD50 rat oral 3310 mg/kg

LD50 rabbit skin 1060uL/kg

LD50 mouse intravenous 525mg/kg

LC50 mouse inhalation 5620ppm/1H

Cupric Acetate:

LD50 rat 501 mg/kg

Carcinogenicity

IARC: Formaldehyde: Group 1, carcinogenic to humans

NTP: Formaldehyde: Known human carcinogen

OSHA: Formaldehyde: Specifically regulated carcinogen

Additional information

RTECS: No data available

12. ECOLOGICAL INFORMATION
12.1 Ecotoxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS
13.1 Waste disposal methods
Contents

Dispose of contents in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of packaging in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

14. TRANSPORT INFORMATION

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| | |
|------------------------------|-------------------|
| 14.1 DOT (US) | |
| UN-Number | No data available |
| Proper shipping name | No data available |
| Hazard class | No data available |
| Packing group | No data available |
| Environmental hazards | No data available |

15. REGULATORY INFORMATION**15.1** No data available**16. OTHER INFORMATION**

Preparation Information
Newcomer Supply Inc.
800-383-7799
www.newcomersupply.com
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