

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name: Decalcifying Solution, Formic Acid/Formalin

Part Number: 10493

CAS-No.: Not applicable

SDS Number: 2700

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
- Causes serious eye damage
- May cause an allergic skin reaction
- May cause allergy or asthma symptoms or breathing difficulties if inhaled
- May cause 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

Version 1.0

- Keep away from heat/sparks/open flames/hot surfaces – No smoking
- Do not breathe dust/fume/gas/mist/vapours/spray
- Avoid breathing dust/fume/gas/mist/vapours/spray
- In case of inadequate ventilation wear respiratory protection
- Wash skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Use only outdoors or in a well-ventilated area
- Contaminated work clothing should not be allowed out of the workplace
- Wear protective gloves/protective clothing/eye protection/face protection

Response:

- Rinse mouth
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
- Specific treatment: see first aid measures in section 4
- In case of fire use carbon dioxide, dry chemical or alcohol-resistant foam.
- IF ON SKIN: Gently wash with plenty of soap and water
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
- Call a POISON CENTER or doctor/physician if you feel unwell
- Take off contaminated clothing and wash before reuse
- If skin irritation or a rash occurs: Get medical advice/attention
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
- If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
- Immediately call a POISON CENTER or doctor/physician
- Specific treatment is urgent: see first aid measures in section 4
- Wash contaminated clothing before reuse
- IF exposed or concerned: Get medical advice/attention
- IF exposed: Call a POISON CENTER or doctor/physician
- Get medical advice/attention if you feel unwell

Storage:

- Store in a well ventilated place. Keep cool.
- 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	3-4%
Name	Methyl Alcohol	
CAS-No.	67-56-1	<1%
Name	Formic Acid	
CAS-No.	67-56-1	4-5%

4. FIRST-AID MEASURES

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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: Gently wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Immediately call a POISON CENTER or doctor/physician.

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: 1	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

Version 1.0

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
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
Formic Acid	64-18-6	OSHA PEL	TWA	5 ppm (9 mg/m ³)
		NIOSH REL	TWA	5 ppm (9 mg/m ³)
		ACGIH TLV	TWA	5 ppm (9.4 mg/m ³)
		ACGIH TLV	STEL	10 ppm (19 mg/m ³)

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).

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	Translucent, colorless liquid
Odor	Faint vinegar-like odor
Odor threshold	No data available
pH	No data available
Melting point/freezing point	ca. 0°C (ca. 32°F)
Initial boiling point and boiling range	ca. 100°C (ca. 32°F)
Flash point	No data available
Evaporation rate	Evap. rate of water = 1; 1
Flammability (solid, gas)	No data available
Upper flammability or explosive limits	No data available
Lower flammability or explosive limits	No data available
Vapor pressure	18 mm Hg at 20°C
Vapor density	For water in air = 1; 1
Relative density	Similar to water
Solubility(ies)	Infinitely soluble with water
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	1.222 (mPa)(s) at 20°C

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

Version 1.0

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. Formic acid reacts violently with oxidizing agents (such as perchlorates, peroxides, permanganates, chlorates, nitrates, chlorine, bromine and fluorine); strong inorganic bases (such as sodium hydroxide and potassium hydroxide); and strong organic bases (such as amines) causing a fire and explosion hazard. Formic acid reacts with chemically active metals (such as potassium, sodium, magnesium and zinc) to form flammable and explosive hydrogen gas and metal salts. Formic acid is decomposed by strong acids (such as hydrochloric, sulfuric and nitric) for form poisonous carbon monoxide gas and reacts with cyanide salts to form toxic hydrogen cyanide gas. Formic acid attacks many plastics and metals.

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.

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 and formic acid 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. Formic acid is corrosive and contact 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.

Germ Cell mutagenicity

No data available

Reproductive toxicity

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

Specific target organ toxicity - single exposure

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No data available

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

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
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

Version 1.0

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

Preparation Information

Newcomer Supply Inc.

800-383-7799

www.newcomersupply.com

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