

## 1. PRODUCT AND COMPANY IDENTIFICATION

- 1.1 Product Name:** Davidson Fixative  
**Part Number:** 1045  
**CAS-No.:** Not applicable  
**SDS Number:** 2640
- 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](http://www.newcomersupply.com)  
**Email:** [newly@newcomersupply.com](mailto: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 3  
 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



- Hazard Statement(s):**
- Flammable liquid and vapour
  - Toxic if swallowed
  - Toxic in contact with skin
  - Fatal if inhaled
  - Causes severe skin burns and eye damage
  - May cause an allergic skin reaction
  - Suspected of causing cancer
  - Causes damage to organs

- 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
  - Keep container tightly closed
  - Ground/bond container and receiving equipment
  - Use explosion-proof fume hood/electrical/ventilating/light/.../equipment
  - Use only non-sparking tools

Version 1.0

- Take precautionary measures against static discharge
- 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:**

- 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
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- IF ON SKIN: Gently wash with plenty of soap and water
- 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 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
- Wash contaminated clothing before reuse
- In case of fire use carbon dioxide, dry chemical or alcohol-resistant foam.
- 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	12-14%
Name	Methyl Alcohol	
CAS-No.	67-56-1	1-2%
Name	Ethyl Alcohol	
CAS-No.	64-17-5	28-29%
Name	Isopropyl Alcohol	
CAS-No.	67-63-0	1-2%
Name	Glacial Acetic Acid	
CAS-No.	64-19-7	11%

### 4. FIRST-AID MEASURES

**4.1 Description of necessary measures**

Version 1.0

**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: 2	hazard: 3	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 <sup>3</sup> )
		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 <sup>3</sup> )
		ACGIH TLV	TWA	200 ppm (262 mg/m <sup>3</sup> )
		ACGIH TLV	STEL	50 ppm (328 mg/m <sup>3</sup> )
		NIOSH REL	TWA	200 ppm (260 mg/m <sup>3</sup> )
		NIOSH REL	STEL	250 ppm (325 mg/m <sup>3</sup> )

Component	CAS-No.	Regulatory	Value	Parameters
Ethyl Alcohol	64-17-5	OSHA PEL	TWA	1000 ppm (1900 mg/m <sup>3</sup> )
		ACGIH TLV	TWA	1000 ppm (1880 mg/m <sup>3</sup> )
		NIOSH REL	TWA	1000 ppm (1900 mg/m <sup>3</sup> )

Component	CAS-No.	Regulatory	Value	Parameters
Isopropyl Alcohol	67-63-0	OSHA PEL	TWA	400 ppm (980 mg/m <sup>3</sup> )
		ACGIH TLV	TWA	400 ppm (983 mg/m <sup>3</sup> )
		ACGIH TLV	STEL	500 ppm (1,230 mg/m <sup>3</sup> )
		NIOSH REL	TWA	400 ppm (980 mg/m <sup>3</sup> )
		NIOSH REL	STEL	500 ppm (980 mg/m <sup>3</sup> )

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

**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.

Version 1.0

**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**

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.

Formaldehyde: 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	Colorless liquid
Odor	Pungent odor
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)	Flammable liquid
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)	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**

Version 1.0

**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**

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**

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**

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

**Dermal exposure**

No data available

**Skin corrosion/irritation**

Formaldehyde is corrosive and contact can severely irritate and burn the skin.

**Serious eye damage/irritation**

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.

**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

Version 1.0

**Reproductive toxicity**

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

**Specific target organ toxicity - single exposure**

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

2924

Version 1.0

<b>Proper shipping name</b>	Flammable liquids, corrosive, n.o.s. (Ethanol, formaldehyde, acetic acid mixture.)
<b>Hazard class</b>	3
<b>Packing group</b>	II
<b>Environmental hazards</b>	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](http://www.newcomersupply.com)

Copyright © Newcomer Supply Inc. All rights reserved.