

MATERIAL SAFETY DATA SHEET

FORMALIN ACETO ALCOHOL, FAA SOLUTION
CAROLINA BIOLOGICAL

Revised: 15/05/08
Replaces: 10/07/07
Printed: 20/05/08

1. PRODUCT DESCRIPTION

Product Name: Formalin Aceto Alcohol. F.A.A. Solution
Product Code(s): 86-3591, 86-3593, 20-6000, 20-6001
Size: Various
Chemical Name: Does not apply - Product is a mixture
CAS Number: None assigned to this product.
Formula: See Section 2
Synonyms: Coleus leaves preservative
Distributor: Carolina Biological Supply Company
2700 York Road
Burlington, NC 27215

Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
Chemtrec (Transportation Spill Response 24 hours): 800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

Principle Hazardous Components:
Isopropyl Alcohol (CAS#67-63-0) 85%
Formaldehyde (CAS#50-00-0) 3.7%
Glacial Acetic Acid (CAS#64-19-7) 5%
Methanol (CAS#67-56-1) 1.2%
TLV and PEL units: Isopropyl Alcohol: ACGIH-TLV-400 ppm (TWA)
STEL 500 ppm; OSHA PEL 400 ppm (TWA)
Formaldehyde: ACGIH-TLV - Ceiling 0.3 ppm
OSHA-PEL 0.75 ppm (TWA), STEL 2 ppm
Glacial Acetic Acid: ACGIH-TLV 10 ppm (TWA)
STEL 15 ppm; OSHA-PEL 10 ppm (TWA)
Methanol: ACGIH-TLV 200 ppm (TWA), STEL 250
ppm (skin); OSHA-PEL 200 ppm (TWA)

3. HAZARD IDENTIFICATION

Emergency Overview:
Potential Health Effects:
Eyes: May cause irritation.
Skin: May cause irritation.
Ingestion: May cause gastrointestinal discomfort.
Inhalation: May cause irritation to respiratory tract.

4. FIRST AID MEASURES

Emergency and First Aid Procedures:
Eyes - Flush with water for at least 15 minutes, raising and lowering eyelids occasionally. Get medical attention if irritation persists.
Skin - Thoroughly wash exposed area for at least 15 minutes. Remove contaminated clothing. Launder contaminated clothing before reuse. Get medical attention if irritation persists.
Ingestion - If swallowed, if conscious, give plenty of water and induce vomiting immediately as directed by medical personnel. Immediately call a physician or poison control center. Never give anything by mouth to an unconscious person.
Inhalation - Remove to fresh air. Give oxygen if breathing is difficult; give artificial respiration if breathing has stopped. Keep person warm, quiet, and get medical attention.

5. FIREFIGHTING PROCEDURES

Flash Point(Method Used): 53F (CC) (Ispropyl Alcohol)

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NFPA Rating: Health: 1
 Fire: 3
 Reactivity: 0

Extinguisher Media:

Use media suitable to extinguish surrounding fire.

Flammable Limits in Air % by Volume: Isopropyl Alcohol: LEL: 2.0 % UEL: 12.7%

6. SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled:

Ventilate area of spill. Eliminate all sources of ignition.

Remove all non-essential personnel from area. Clean-up personnel should wear proper protective equipment and clothing. Absorb material with suitable absorbent and containerize for disposal.

7. SPECIAL PRECAUTIONS

Precautions to be Taken in Handling or Storing: Keep in tightly closed container. Store in a cool area away from ignition sources and oxidizers.

Protect from physical damage. This material should be kept in an area suitable for the storage of flammable materials. Bond and ground containers

when transferring liquid.

Other Precautions: Do not get in eyes. Do not ingest. Avoid prolonged repeated exposure to the skin and eyes. Use only in a well ventilated area

and avoid breathing vapors.

8. SPECIAL PROTECTION INFORMATION

Respiratory Protection(Specify Type):

A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.

Ventilation:

Local Exhaust: Preferred

Mechanical(General): Acceptable

Special: No

Other: No

Protective Gloves:

Rubber, neoprene, PVC, or equivalent.

Eye Protection:

Splash proof chemical safety goggles should be worn at all times.

Other Protective Clothing or Equipment:

Lab apron, eye wash, and safety shower.

9. PHYSICAL DATA

Molecular Weight:

Melting Point: No information available

Boiling Point: 83C (Isopropyl Alcohol)

Vapor Pressure: No information available

Vapor Density(Air=1): 2.07 (Isopropyl Alcohol)

Specific Gravity(H2O=1): 0.8 (Isopropyl Alcohol)

Percent Volatile by Volume: 100%

Evaporation Rate(H2O=1): No information available

Solubility in Water: 100%

Appearance and Odor: Clear liquid with alcoholic and slightly pungent

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odor

10. REACTIVITY DATA

Stability: Stable

Conditions to Avoid: Heat and open flame

Incompatibility(Materials to Avoid): Oxidizing materials;

Hazardous Decomposition Products: No information available

Hazardous Polymerization: Will not occur

11. TOXICITY DATA

Toxicity Data: To the best of our knowledge, the toxicological properties of this mixture have not been thoroughly evaluated. Data is listed below for

individual components.

Isopropyl alcohol: orl-rat LD50: 5.045 mg/kg, ihl-rat LClo: 12.000 ppm/8H

Formaldehyde: orl-rat LD50: 800mg/kg, ihl-rat LC50: 590 mg/m3

Glacial Acetic Acid: orl-rat LD50: 3,530 mg/kg. ihl-rat LCLo: 16.000 ppm/4H

Methanol: orl-rat LD50: 5.628 mg/kg, ihl-rat LC50: 64,000 ppm/4H

Effects of Overexposure:

Acute: See section 3

Chronic:

Isopropyl alcohol: Mutation data cited

Formaldehyde: Mutation data cited. Reproduction data cited.

Tumorigenic data cited.

Glacial Acetic Acid: Mutation data cited

Methanol: Mutation data cited. Reproductive effects data cited.

Conditions Aggravated by Overexposure: Individuals with pre-existing diseases

of the retina kidneys, liver or cardiovascular system may have increased susceptibility to the toxic effects of formaldehyde. Pre-existing conditions

of the skin and eyes.

Target Organs: Eyes, nose, skin, kidneys, liver and cardiovascular system.

Primary Route(s) of Entry: Inhalation, skin contact

12. ECOLOGICAL DATA

EPA Waste Numbers: Formaldehyde (U122), Glacial Acetic Acid (D002) and Methanol (U154)

13. DISPOSAL INFORMATION

Waste Disposal Methods: Dispose in accordance with all applicable Federal,

State and Local regulations.

Always contact a permitted waste disposer (TSD) to assure compliance.

14. TRANSPORT INFORMATION

Description: Flammable liquids, corrosive, n.o.s.(isopropanol, acetic acid,

formaldehyde)3 UN2924 II

Label(s): 3,8 Cargo Aircraft Only

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15. REGULATORY INFORMATION

Warning: This product contains formalin, a chemical known to cause cancer,

birth defects, or other reproductive harm.

EPA TSCA Status: On TSCA Inventory

Hazard Category for SARA Section 311/312 Reporting: Acute Chronic
Fire

Product or Components	SARA EHS Sec. 302 TPQ	SARA Sec. 313 Chemicals		CERCLA Sec. 103 RQ lbs.	RCRA Sec.
		Name List	Chemical Category		
261.33					
Isopropyl alcohol	No	Yes	No	No	No
Formaldehyde	500	Yes	No	No	Yes
Glacial Acetic Acid	No	No	No	5000	Yes
Methanol	No	Yes	No	5000	Yes

16. ADDITIONAL INFORMATION

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

Glossary

ACGIH.....American Conference of Governmental Industrial Hygienists

CAS Number..Chemical Abstracts Service Number

CERCLA.....Comprehensive Environmental Response, Compensation, and Liability Act

DOT.....U.S. Department of Transportation

IARC.....International Agency of Research on Cancer

mppcf.....million particles per cubic foot

N/A.....Not Available

NTP.....National Toxicology Program

OSHA.....Occupational Safety and Health Administration

PEL.....Permissible Exposure Limit

ppm.....parts per million

RCRA.....Resource Conservation and Recovery Act

SARA.....Superfund Amendments and Reauthorization Act

TLV.....Threshold Limit Value

TSCA.....Toxic Substances Control Act