

MATERIAL SAFETY DATA SHEET

FELINE EMBALMING FLUID
CAROLINA BIOLOGICAL SUPPLY COMPANY

Revised: 09/05/00
Replaces: None
Printed: 04/12/01

1. PRODUCT DESCRIPTION

Product Name: Feline Embalming Fluid
Product Code(s): None
Size: Not applicable
Chemical Name: Does not apply - Product is a mixture
CAS Number: None assigned to this product -
See individual elements below.
Formula: Proprietary Information
Synonyms: None
Distributor: Carolina Biological Supply Company
Address: 2700 York Road, Burlington, NC 27215

2. COMPOSITION/INFORMATION ON INGREDIENTS

Principal Hazardous Components:
Formaldehyde (CAS# 50-0-0)
Propylene Glycol (CAS# 57-55-6)
Methanol (CAS# 67-56-1)
Phenol (CAS# 108-95-2)
Sodium Citrate (CAS# 144-33-2)

TLV (Units):
Formaldehyde: ACGIH-TLV Ceiling 0.3 ppm;
OSHA-PEL 0.75 ppm (TWA), STEL 2 ppm
Propylene Glycol: No TLV (ACGIH) or PEL (OSHA) information found.
Methanol: ACGIH-TLV 200 ppm (TWA), STEL 250 ppm (skin);
OSHA-PEL 200 ppm (TWA)
Phenol: ACGIH-TLV 5 ppm (skin) (TWA),
OSHA-PEL: 5 ppm (skin) (TWA)
Sodium Citrate: No TLV (ACGIH) or PEL (OSHA) information found.

3. HAZARD IDENTIFICATION

Emergency Overview:

The data below applies to the pure substances that are constituents of this mixture. Overexposure to this mixture may cause some or none of the symptoms listed. Due to the dilute nature of the ingredients of this mixture, it is unlikely that symptoms as severe as listed will occur. It is expected that this mixture is harmful if ingested, inhaled, or absorbed through the skin. This mixture cannot be made nonpoisonous and death may result from ingestion of large quantities. Prolonged skin contact may cause severe dermatitis, burns to skin, or other harmful effects.

Potential Health Effects (Pure Substances):

Formaldehyde: Strong sensitizer. May cause irritation to skin along with allergic rash. Eye contact may cause blurring, tearing, and discomfort. Prolonged contact with eye may cause

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corneal or conjunctival ulceration. Inhalation may cause severe discomfort to nasal passages and upper respiratory tract. Ingestion may cause gastrointestinal disturbances, and in severe cases of ingestion, death.

Propylene Glycol: Irritating to eyes, skin, and mucous membranes. Low oral toxicity.

Methanol: May irritate mucous membranes. Extremely toxic to optic nerve. Symptoms of overexposure may include headache, drowsiness, nausea, vomiting, blurred vision, and coma. May cause drying and cracking of skin. May irritate eyes. If eye contact is prolonged, lesions may develop. Persons with preexisting disorders of skin, eyes, liver, or kidneys may be more susceptible to the toxic effects of methanol. Methanol cannot be made nonpoisonous.

Phenol: Human poison by ingestion. Moderately toxic by skin contact. A severe eye and skin irritant. Absorption of phenolic solutions through the skin may be very rapid, and cause death within 30 minutes to several hours by of exposure of as little as 64 square inches of skin. Lesser exposures can cause damage to the kidneys, liver, pancreas and spleen, and edema of the lungs. Ingestion can cause corrosion of the lips, mouth, throat, esophagus and stomach, and gangrene. Ingestion of 1.5 grams has killed. Chronic exposures can cause death from liver and kidney damage. Dermatitis resulting from contact with phenol or phenol-containing products is fairly common in industry.

Sodium Citrate: Poison by intravenous route. Moderately toxic by intraperitoneal and subcutaneous routes.

4. FIRST AID MEASURES

Emergency and First Aid Procedures:

- Eyes: Flush with water for at least 15 minutes, raising and lowering upper and lower eyelids occasionally. Get medical attention.
- Skin: Thoroughly wash exposed area with soap and water for at least 15 minutes. Remove contaminated clothing. Launder contaminated clothing before reuse. If irritation develops get medical attention.
- Ingestion: If swallowed, if conscious, give plenty of water or milk. Immediately call a poison control center or physician.
- 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.

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5. FIREFIGHTING PROCEDURES

Flash Point (Method Used): No information available
NFPA 704M Rating: Health: 3
Flammability: 3
Reactivity: 0
Extinguisher Media: Use media suitable to extinguish surrounding fire.
Flammable Limits in Air % by volume: No information available
Autoignition Temperature: No information available

Special Firefighting Procedures:

Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

Unusual Fire and Explosion Hazards:

This product may evolve extremely noxious fumes under fire conditions.

6. SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled (Pure Substances):

Ventilate area of spill. Remove all non-essential personnel from the area. Cleanup personnel should wear full protective clothing and NIOSH approved self-contained breathing apparatus operated in pressure demand or other positive pressure mode. Absorb material on vermiculite or other suitable absorbent material. When saturated, shovel or scoop up material with non-sparking tools and place in containers for disposal. Be sure to comply with all applicable local, state, and federal waste disposal regulations.

7. SPECIAL PRECAUTIONS

Precautions to be Taken in Handling or Storing:

Store tightly closed in a cool, dry, well ventilated area suitable for general chemical storage.

Other Precautions: No information available

8. SPECIAL PROTECTION INFORMATION

Respiratory Protection (Specify Type):

Use general or local exhaust ventilation to insure that airborne concentrations are kept below TLV and PEL requirements. A NIOSH approved chemical cartridge respirator can be worn, in general, up to 10 times the TLV. Consult respirator manufacturer for specific details. Above this point, a NIOSH approved self-contained breathing apparatus must be worn.

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Ventilation:

Local Exhaust: Preferred
Mechanical (General): Acceptable
Special: No
Other: No

Protective Gloves: Neoprene, Nitrile or equivalent.

Eye Protection: Splash-proof chemical safety goggles should be worn.

Other Protective Clothing or Equipment:
Lab coat, eye wash, safety shower.

9. PHYSICAL DATA

Melting Point (degrees C): No information available
Boiling Point (degrees C): No information available
Vapor Pressure (mm Hg): No information available
Vapor Density (Air =1): No information available
Specific Gravity (H₂O = 1): No information available
Percent Volatile by Volume: Approximately 99.5%
Evaporation Rate (Water = 1): No information available
Solubility in Water: Complete, product is an aqueous solution
Appearance and Odor: Clear liquid with very pungent odor

10. REACTIVITY DATA

Stability: Stable
Conditions to Avoid: No information available.
Incompatibility (Materials to Avoid): Water reactive materials
Hazardous Decomposition Products: If heated to thermal decomposition the components of this mixture may evolve formaldehyde gas. If heated to thermal decomposition the components of this mixture may evolve oxides of carbon.
Hazardous Polymerization: Will not occur

11. TOXICITY DATA

Threshold Limit Value: See Section 2

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. All data RTECS, 1986.

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Formaldehyde:	oral-rat LD50	800 mg/kg ,
	ihl-rat LC50	590 mg/m3
Propylene Glycol:	oral-rat LD50	20 g/kg
Methanol:	oral-rat LD50	5628 mg/kg,
	ihl-rat LC50	64000 ppm/4H
Phenol:	oral-rat LD50	317 mg/kg,
	ihl-rat LC50	316 mg/kg
Sodium Citrate:	ipr-rat LD50	1724 mg/kg,
	ivn-mus LD50	71 mg/kg

Effects of Overexposure:
Acute: See Section 3

Chronic*:

Formaldehyde: Mutation data cited. Reproductive data cited.
Tumorigenic data cited. Listed by the IARC as probably
carcinogenic to humans on the basis of animal evidence. Listed by
NTP as reasonably anticipated to be carcinogenic. Cited in OSHA
29 CFR 1910.1048 as a potential carcinogen.

Propylene Glycol: Mutation data cited. Reproductive data cited.
Not listed as causing cancer by IARC, NTP, or OSHA.

Methanol: Mutation data cited. Reproductive data cited. Not
listed as causing cancer by IARC, NTP, or OSHA.

Phenol: Mutation data cited. Reproductive effects data cited.
Tumorigenic data cited. Not listed as causing cancer by IARC,
NTP, or OSHA.

Sodium Citrate: No chronic effects data found. Not listed as
causing cancer by IARC, NTP or OSHA.

* Data cited in this section refers to listings in the Registry
of Toxic Effects of Chemical Substances (RTECS). It does not
necessarily mean that these effects were observed. Individual
articles referenced in RTECS should be consulted when making any
determination of toxicity of this substance.

Conditions Aggravated by Overexposure:
Preexisting conditions of skin, eyes, liver, or kidneys.

Target Organs: Skin, eyes, liver, kidneys

12. ECOLOGICAL DATA

Resource Conservation and Recovery Act (RCRA) requirements:
Formaldehyde (U122), Phenol (U188) and Methanol (U154) are
considered hazardous chemical wastes if and when they are
discarded.

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Clean Water Act Requirements:

Formaldehyde is listed under Section 311 as a hazardous substance requiring the submission of a National Pollutant Discharge Elimination System (NPDES) permit application to the EPA.

Formaldehyde is listed in Table V of testing requirements as a hazardous substance required to be identified by existing dischargers, if expected to be present.

13. DISPOSAL INFORMATION

Waste Disposal Method:

Dispose in accordance with all applicable federal, state and local regulations.

14. TRANSPORT INFORMATION

N/A

15. REGULATORY INFORMATION

EPA TSCA STATUS:

The ingredients of this product are all on the TSCA Inventory list.

Hazard Category for SARA Section 311/312 Reporting:

Acute Chronic

SARA EHS Sect. 302	TPQ (lbs.)
Formaldehyde	500
Propylene Glycol	No
Methanol	No
Phenol	500
Sodium Citrate	No

SARA Sect. 313 Chemicals

Name list	Chemical Category
Formaldehyde Yes	No
Propylene Glycol Yes	No
Methanol Yes	No
Phenol Yes	No
Sodium Citrate No	No

CERCLA Sect. 103	RQ (lbs.)
Formaldehyde	100
Propylene Glycol	No
Methanol	5000
Phenol	1000
Sodium Citrate	No

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RCRA	Sect. 261.33
Formaldehyde	Yes
Propylene Glycol	No
Methanol	Yes (Ignitability)
Phenol	Yes
Sodium Citrate	No

California Proposition 65: Formaldehyde (gas) is a chemical known to the State of California to cause cancer.

16. ADDITIONAL INFORMATION AND PRECAUTIONS

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
CWA.....Clean Water Act
DOT.....U.S. Department of Transportation
IARC.....International Agency for Research on Cancer
IATA.....International Air Transport Association
IMO.....International Maritime Organization
NTP.....National Toxicology Program
OSHA.....Occupational Safety and Health Administration
PEL.....Permissible Exposure Limit
ppm.....parts per million
RTECS.....Registry of Toxic Effects of Chemical Substances
(published by the National Institute of Occupational
Safety and Health (NIOSH))
TLV.....Threshold Limit Value