ACC# 89551

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Material Safety Data Sheet

Hema 3 Fixative

Section 1 - Chemical Product and Company Identification

MSDS Name:

Hema 3 Fixative

Catalog Numbers:

11985, 22122911A, 2300577, 23122929, 23123869A, 55851A

Synonyms:

Carbinol; methanol; methyl hydroxide; monohydroxymethane; pyroxylic spirit; wood alcohol; wood naptha; wood spirit.

Company Identification:

Fisher Diagnostics
Fisher Scientific Company LLC
8365 Valley Pike
Middletown, VA 22645-0307

Company Phone Number:

(800) 524-0294

Emergency Phone Number:

(800) 528-0494

CHEMTREC Phone Number:

800-424-9300

CHEMTREC (International):

703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent	EINECS/ ELINCS		
67-56-1	Methanol	>99	200-659-6	F T	11 23/24/25 39/23/24/25
2353-45-9	Fast green	<1.0	219-091-5		

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: clear light green liquid

Danger! Poison! Flammable liquid and vapor. Harmful if inhaled. May be fatal or cause blindness if swallowed. May cause central nervous system depression. Causes eye and skin irritation. May be absorbed through intact skin. May cause respiratory and digestive tract irritation. May cause kidney damage. Cannot be made non-poisonous. This substance has caused adverse reproductive and fetal effects in animals. Flash Point: 54°F.

Target Organs: kidneys, central nervous system, liver, eyes.

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Potential Health Effects

Eye:

Causes moderate eye irritation. Vapors may cause eye irritation. May cause painful sensitization to light.

Skin:

May cause skin irritation. May be absorbed through the skin in harmful amounts.

Ingestion:

May cause irritation of the digestive tract. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure. May cause kidney failure.

Inhalation:

May cause respiratory tract irritation. May cause liver and kidney damage. May cause adverse central nervous system effects including headache, convulsions, and possible death. May cause visual impairment and possible permanent blindness. May cause effects similar to those described for ingestion.

Chronic:

Prolonged or repeated skin contact may cause dermatitis. Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion.

Section 4 - First Aid Measures

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed.

Skin:

Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Ingestion:

Call a poison control center. If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation:

Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician:

Effects may be delayed. Ethanol may inhibit methanol metabolism.

Section 5 - Fire Fighting Measures

General Information:

Containers can build up pressure if exposed to heat and/or fire. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.

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Extinguishing Media:

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. For large fires, use water spray, fog or alcohol-resistant foam. Cool containers with flooding quantities of water until well after fire is out.

Autoignition Temperature:

Not applicable.

Explosion Limits:

Lower: 6.0 Upper: 36.5

Flash Point:

54°F (12.22°C)

NFPA Rating:

(estimated) Health: 1; Flammability: 3; Reactivity: 0

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Use water spray to disperse the gas/vapor. Remove all sources of ignition. Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite. Do not use combustible materials such as sawdust. A vapor suppressing foam may be used to reduce vapors.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Ground and bond containers when transferring material. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Do not get on skin or in eyes. Do not ingest or inhale. Use only in a chemical fume hood. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage:

Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Use only under a chemical fume hood.

Exposure Limits

Chemical Name:	ACGIH	NIOSH	OSHA
Methanol	200 ppm TWA;250 ppm STEL;skin - potential for cutaneous absorption	200 ppm TWA; 260 mg/m3 TWA 6000 ppm IDLH 250 ppm STEL; 325 mg/m3 STEL	200 ppm TWA; 260 mg/m3 TWA

Fast green	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.

OSHA Vacated PELs

Methanol: 200 ppm TWA; 260 mg/m3 TWA

Personal Protective Equipment

Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:

Wear appropriate protective gloves and clothing to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State:	Liquid
Color:	clear light green
Odor:	pungent odor
pH:	No information found.
Vapor Pressure:	96 mm Hg
Vapor Density:	1.1 (Air=1)
Evaporation Rate:	5.2 (Ether=1)
Viscosity:	0.55 cP 20°C
Boiling Point:	64.7°C @ 760.00mm Hg (148.46°F)
Freezing/Melting Point:	-98°C (-144.40°F)
Decomposition Temperature:	No information found.
Solubility in water:	Soluble.
Specific Gravity/Density:	.7910g/cm3
Molecular Formula:	CH4O
Molecular Weight	32.04

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

High temperatures, incompatible materials, ignition sources.

Incompatibilities with Other Materials

Oxidants (such as barium perchlorate, bromine, chlorine, hydrogen peroxide, lead perchlorate, perchloric acid, sodium hypochlorite). Active metals (such as potassium and magnesium). Substance is also incompatible with specific chemicals including:acetyl bromide, alkyl aluminum salts, beryllium dihydride, carbon tetrachloride + metals, chloroform + heat, chloroform + sodium hydroxide, cyanuric chloride, diethyl zinc, nitric acid, and potassium tertbutoxide. Please refer to the NFPA Fire Protection Guide for all specifics.

Hazardous Decomposition Products

Carbon monoxide, carbon dioxide, formaldehyde.

Hazardous Polymerization

Has not been reported.

Section 11 - Toxicological Information

RTECS:

CAS# 67-56-1: PC1400000.
CAS# 2353-45-9: BQ4425000.

LD50/LC50:

CAS# 67-56-1:
Draize test, rabbit, eye: 40 mg Moderate
Draize test, rabbit, eye: 100 mg/24H Moderate
Draize test, rabbit, skin: 20 mg/24H Moderate
Inhalation, rabbit: LC50 = 81000 mg/m3/14H
Inhalation, rat: LC50 = 64000 ppm/4H
Oral, mouse: LD50 = 7300 mg/kg
Oral, rabbit: LD50 = 14200 mg/kg
Oral, rat: LD50 = 5600 mg/kg
Skin, rabbit: LD50 = 15800 mg/kg.
CAS# 2353-45-9:
Oral, rat: LD50 = >2 gm/kg.

Carcinogenicity:

CAS# 67-56-1: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.
CAS# 2353-45-9
IARC: Group 3 (not classifiable)

Epidemiology:

No information available.

Teratogenicity:

Effects on Newborn: behaviorial, orl-rat TDLo=7500 mg/kg. Embryo or Fetus: fetotoxicity, TCLo=10000 ppm/7H Specific Developmental Abnormalities: cardiovascular, musculoskeletal, urogenital, TCLo=20000 ppm/7H.

Reproductive:

Paternal Effects: spermatogenesis, ipr-mouse TDLo=5 g/kg.

Mutagenicity

DNA Damage: orl-rat 10 umol/kg. DNA Inhibition: human lymphocyte 300 mmol/L. Microbial Mutation w/o S9: S. cerevisiae 12 pph.

Neurotoxicity

No information found.

Other:

See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity:

Goldfish (fresh water), 250 ppm/11H, death. Aquatic toxicity rating: TLm 96 >1000 ppm.

Environmental:

No information reported.

Physical:

No information available.

Other:

None.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.
US EPA guidelines for the classification determination are listed in 40CFR Parts 261.3.
Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P Series Wastes

None of the components are on this list.

RCRA U Series Wastes

CAS# 67-56-1: waste number U154 (Ignitable waste).

Section 14 - Transport Information

	US DOT	Canadian TDG
Proper Shipping Name:	METHANOL	METHANOL
Hazard Class:	3	3(6.1)
UN Number:	UN1230	UN1230
Packing Group:	II	II

Section 15 - Regulatory Information

US Federal

TSCA

CAS# 67-56-1 is listed on the TSCA Inventory.
CAS# 2353-45-9 is listed on the TSCA Inventory.

Health and Safety Reporting List

None of the components are on this list.

Chemical Test Rules

None of the components are on this list.

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TSCA Section 12b

None of the components are on this list.

TSCA Significant New Use Rule (SNUR)

None of the components are on this list.

CERCLA Hazardous Substances and corresponding RQs

CAS# 67-56-1: 5000 lb final RQ; 2270 kg final RQ

SARA Section 302 Extremely Hazardous Substances

None of the components are on this list.

SARA Hazard Categories

CAS# 67-56-1: acute, flammable.
CAS# 2353-45-9: chronic.

CERCLA/SARA Section 313

This material contains Methanol (CAS# 67-56-1, 99%),which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 372.

Clean Air Act - Hazardous Air Pollutants (HAPs)

CAS# 67-56-1 is listed as a hazardous air pollutant (HAP).

Clean Air Act - Class 1 Ozone Depletors

None of the components are on this list.

Clean Air Act - Class 2 Ozone Depletors

None of the components are on this list.

Clean Water Act - Hazardous Substances

None of the components are on this list.

Clean Water Act - Priority Pollutants

None of the components are on this list.

Clean Water Act - Toxic Pollutants

None of the components are on this list.

OSHA - Highly Hazardous

None of the components are on this list.

US State

State Right to Know

Methanol can be found on the following state Right-to-Know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.
Fast green can be found on the following state Right-to-Know lists: California.

California Regulations

CAS# 67-56-1: No information found.
CAS# 2353-45-9: No information found.

European/International Regulations

European Labelling in Accordance with EC Directives:

Hazard Symbols: T F
Risk Phrases: R 11 Highly flammable.
R 23/25 Toxic by inhalation and if swallowed.
Safety Phrases:
S 16 Keep away from sources of ignition - No smoking.
S 2 Keep out of reach of children.

S 24 Avoid contact with skin.
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S 7 Keep container tightly closed.

WGK (Water Danger/Protection)

CAS# 67-56-1: 1
CAS# 2353-45-9: No information found.

United Kingdom Occupational Exposure Limits

No information found.

Canadian DSL/NDSL

CAS# 67-56-1 is listed on Canada's DSL List.
CAS# 2353-45-9 is listed on Canada's DSL List.

Canadian WHMIS Classifications

This product has a WHMIS classification of B2, D1A, D2B.

Canadian Ingredient Disclosure List

CAS# 67-56-1 is listed on Canada's Ingredient Disclosure List.
CAS# 2353-45-9 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 67-56-1: OEL-ARAB Republic of Egypt:TWA 200 ppm (260 mg/m3);Skin
OEL-AUSTRALIA:TWA 200 ppm (260 mg/m3);STEL 250 ppm;Skin
OEL-BELGIUM:TWA 200 ppm (262 mg/m3);STEL 250 ppm;Skin
OEL-CZECHOSLOVAKIA:TWA 100 mg/m3;STEL 500 mg/m3
OEL-DENMARK:TWA 200 ppm (260 mg/m3);Skin
OEL-FINLAND:TWA 200 ppm (260 mg/m3);STEL 250 ppm;Skin
OEL-FRANCE:TWA 200 ppm (260 mg/m3);STEL 1000 ppm (1300 mg/m3)
OEL-GERMANY:TWA 200 ppm (260 mg/m3);Skin
OEL-HUNGARY:TWA 50 mg/m3;STEL 100 mg/m3;Skin JAN9
OEL-JAPAN:TWA 200 ppm (260 mg/m3);Skin
OEL-THE NETHERLANDS:TWA 200 ppm (260 mg/m3);Skin
OEL-THE PHILIPPINES:TWA 200 ppm (260 mg/m3)
OEL-POLAND:TWA 100 mg/m3
OEL-RUSSIA:TWA 200 ppm;STEL 5 mg/m3;Skin
OEL-SWEDEN:TWA 200 ppm (250 mg/m3);STEL 250 ppm (350 mg/m3);Skin
OEL-SWITZERLAND:TWA 200 ppm (260 mg/m3);STEL 400 ppm;Skin
OEL-THAILAND:TWA 200 ppm (260 mg/m3)
OEL-TURKEY:TWA 200 ppm (260 mg/m3)
OEL-UNITED KINGDOM:TWA 200 ppm (260 mg/m3);STEL 250 ppm;Skin
OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

Section 16 - Other Information

Color information has been
MSDS Creation Date: March 17, 1998
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