



Material Safety Data Sheet

Section 1. Product and Company Identification

Product Name	Giemsa Stain Solution	Product Code	620
Manufacturer	EMD Chemicals Inc. P.O. Box 70 480 Democrat Road Gibbstown, NJ 08027 Prior to January 1, 2003 EMD Chemicals Inc. was EM Industries, Inc. or EM Science, Division of EM Industries, Inc.	Effective Date	11/20/2003
		Print Date	5/3/2004

For More Information Call

856-423-6300 Technical Service
Monday-Friday: 8:00 AM - 5:00 PM

In Case of Emergency Call

800-424-9300 CHEMTREC (USA)
613-996-6666 CANUTEC (Canada)
24 Hours/Day: 7 Days/Week

Synonym None.

Material Uses Laboratory Reagent

Chemical Family Dye Solution

Section 2. Composition and Information on Ingredients

Component	CAS #	% by Weight
Giemsa Stain	51811-82-6	<1
Glycerine	56-81-5	35-44
Methanol	67-56-1	50-55

Section 3. Hazards Identification

Physical State and Appearance Liquid.

Emergency Overview DANGER !POISON !
FLAMMABLE LIQUID AND VAPOR.
VAPOR MAY CAUSE FLASH FIRE.
MAY BE FATAL IF SWALLOWED.
CANNOT BE MADE NON-POISONOUS
MAY CAUSE BLINDNESS IF SWALLOWED.
HARMFUL IF INHALED.
MAY CAUSE EYE AND SKIN IRRITATION.
CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS:
KIDNEYS, GASTROINTESTINAL TRACT, RESPIRATORY TRACT, SKIN, CENTRAL NERVOUS SYSTEM, EYE, LENS OR CORNEA.

Routes of Entry Dermal contact. Eye contact. Inhalation. Ingestion.

Potential Acute Health Effects

Eyes May be hazardous in case of eye contact (irritant).

Skin May be hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Non-permeator by skin.

Inhalation Hazardous in case of inhalation.

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Ingestion Extremely hazardous in case of ingestion. May be fatal if swallowed.

Potential Chronic Health Effects

Carcinogenic Effects This material is not known to cause cancer in animals or humans.

Additional information See Toxicological Information (section 11)

Medical Conditions Aggravated by Overexposure:

Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.
Skin Contact	In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Ingestion	If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Section 5. Fire Fighting Measures

Flammability of the Product	Product will burn.
Auto-ignition Temperature	The lowest known value is 370°C (698°F) (Glycerine).
Flash Points	Closed cup: 11°C (51.8°F).
Flammable Limits	The greatest known range is LOWER: 6% UPPER: 36.5% (METHANOL)
Products of Combustion	These products are carbon oxides (CO, CO ₂).
Fire Hazards in Presence of Various Substances	Highly flammable in presence of open flames, sparks and static discharge, of shocks, of heat, of oxidizing materials.
Explosion Hazards in Presence of Various Substances	<p>Risks of explosion of the product in presence of static discharge: Highly flammable in presence of open flames, sparks and static discharge. Highly explosive in presence of open flames, sparks and static discharge.</p> <p>Risks of explosion of the product in presence of mechanical impact: Highly flammable in presence of shocks. Highly explosive in presence of shocks.</p>
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.
Protective Clothing (Fire)	Be sure to use an approved/certified respirator or equivalent.
Special Remarks on Fire Hazards	Vapor may travel considerable distance to source of ignition and flash back.
Special Remarks on Explosion Hazards	Development of hazardous combustion gases or vapors possible in the event of fire.

Section 6. Accidental Release Measures

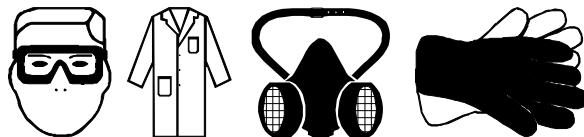
Small Spill and Leak	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.
Large Spill and Leak	Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.
Spill Kit Information	The following EMD Chemicals Inc. SpillSolv (TM) absorbent is recommended for this product: SX1330 Solvent Treatment Kit

Section 7. Handling and Storage

Handling	Keep away from heat, sparks and flame. Keep container closed. Use only with adequate ventilation. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment.
Storage	Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.
Personal Protection	
<i>Eyes</i>	Splash goggles.
<i>Body</i>	Lab coat.
<i>Respiratory</i>	Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.
<i>Hands</i>	Gloves.
<i>Feet</i>	Not applicable.

Protective Clothing (Pictograms)**Personal Protection in Case of a Large Spill**

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Product Name

Giemsa Stain
Glycerine

Exposure Limits

Not available.
Belgium Minister of Labour (Belgium, 1998).
 VL: 10 mg/m³ 8 hour(s).
Tyterveyslaitos (Finland, 1998).
 TWA: 20 mg/m³ 8 hour(s).
INRS (France, 1996).
 VME: 10 mg/m³ 8 hour(s).
National Authority for Occupational Safety/Health (Ireland, 1999).
 OEL: 10 mg/m³ 8 hour(s).
Arbeidsinspectie (Netherlands, 1999).
 TGG 8 uur: 10 mg/m³ 8 hour(s).
EH40-OES (United Kingdom (UK), 1997).

Methanol

TWA: 10 mg/m³ 8 hour(s).**ACGIH (United States, 1994).**TWA: 10 mg/m³ 8 hour(s). Form: Mist**OSHA Final Rule (United States, 1989).**TWA: 5 mg/m³ 8 hour(s). Form: Respirable fractionTWA: 10 mg/m³ 8 hour(s). Form: Total dust**ACGIH (United States, 1994). Skin**TWA: 262 mg/m³STEL: 328 mg/m³**OSHA (United States, 1989). Skin**TWA: 260 mg/m³STEL: 325 mg/m³**ACGIH (United States, 1994). Skin**STEL: 328 mg/m³ 15 minute(s).

STEL: 250 ppm 15 minute(s).

TWA: 262 mg/m³ 8 hour(s).

TWA: 200 ppm 8 hour(s).

NIOSH REL (United States, 1994). SkinSTEL: 325 mg/m³ 15 minute(s).

STEL: 250 ppm 15 minute(s).

TWA: 260 mg/m³ 10 hour(s).

TWA: 200 ppm 10 hour(s).

OSHA Final Rule (United States, 1989). SkinSTEL: 325 mg/m³ 15 minute(s).

STEL: 250 ppm 15 minute(s).

TWA: 260 mg/m³ 8 hour(s).

TWA: 200 ppm 8 hour(s).

Section 9. Physical and Chemical Properties

Odor	Alcohol like. (Slight.)
Color	Purple.
Physical State and Appearance	Liquid.
Molecular Weight	Not applicable.
Molecular Formula	Not applicable.
pH	Not available.
Boiling/Condensation Point	The lowest known value is 64.55°C (148.2°F) (Methanol). Weighted average: 161.35°C (322.4°F)
Melting/Freezing Point	May start to solidify at 17.778°C (64°F) based on data for: Glycerine. Weighted average: -48.13°C (-54.6°F)
Specific Gravity	Weighted average: 0.94 (Water = 1)
Vapor Pressure	The highest known value is 12.9 kPa (97 mmHg) (@ 20°C) (Methanol). Weighted average: 7.4 kPa (55.5 mmHg) (@ 20°C)
Vapor Density	The highest known value is 3.1 (Air = 1) (Glycerine). Weighted average: 1.96 (Air = 1)
Volatility	99.9% (v/v). (METHANOL.)
Odor Threshold	The lowest known value is 100 ppm (Methanol)
Evaporation Rate	5.91 (Methanol) compared to (n-Butyl Acetate =1)
VOC	100 (%)
LogK_{ow}	Not available.

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Solubility Soluble in water.

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.

Conditions of Instability Not available.

Incompatibility with Various Substances Highly reactive with oxidizing agents, reducing agents, combustible materials, alkalis. Reactive with metals, acids.

Rem/Incompatibility Avoid contact with strong oxiders, excessive heat, sparks or open flame.

Hazardous Decomposition Products CO_x , Formaldehyde.

Hazardous Polymerization Will not occur.

Section 11. Toxicological Information

RTECS Number:	Giemsa Stain	Not available.
	Glycerine	MA8050000
	Methanol	PC1400000

Toxicity Acute oral toxicity (LD₅₀): 27 mg/kg [Rabbit]. (Glycerine).
Acute dermal toxicity (LD₅₀): 53 mg/kg [Rabbit]. (Glycerine).
Acute toxicity of the vapor (LC₅₀): 570 mg/m³ 1 hour(s) [Rat]. (Glycerine).

Chronic Effects on Humans Not available.

Acute Effects on Humans May be hazardous in case of eye contact (irritant). May be hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Non-permeator by skin. Hazardous in case of inhalation. Extremely hazardous in case of ingestion. May be fatal if swallowed.

Synergetic Products (Toxicologically) Not available.

Irritancy Draize Test: Not available.

Sensitization Not available.

Carcinogenic Effects This material is not known to cause cancer in animals or humans.

Toxicity to Reproductive System Not available.

Teratogenic Effects Not available.

Mutagenic Effects Not available.

Section 12. Ecological Information

Ecotoxicity Not available.

BOD5 and COD Not available.

Toxicity of the Products of Biodegradation The products of degradation are less toxic than the product itself.

Section 13. Disposal Considerations

EPA Waste Number	D001 U154
Treatment	Incineration, fuels blending or recycle. Contact your local permitted waste disposal site (TSD) for permissible treatment sites. ALWAYS CONTACT PERMITTED WASTE DISPOSER (TSD) TO ASSURE COMPLIANCE WITH ALL CURRENT LOCAL, STATE AND FEDERAL REGULATIONS.

+ Section 14. Transport Information

DOT Classification	Proper Shipping Name: METHANOL SOLUTION Hazard Class: 3 UN number: UN1230 Packing Group: II RQ: Not applicable.
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TDG Classification	Not available.
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IMO/IMDG Classification	Not available.
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ICAO/IATA Classification	Not available.
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Section 15. Regulatory Information

U.S. Federal Regulations	TSCA 8(b) inventory: Giemsa Stain; Glycerine; Methanol SARA 302/304/311/312 extremely hazardous substances: No products were found. SARA 302/304 emergency planning and notification: No products were found. SARA 302/304/311/312 hazardous chemicals: Glycerine; Methanol SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Glycerine: Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard; Methanol: Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard SARA 313 toxic chemical notification and release reporting: METHANOL 52.5% Clean Water Act (CWA) 307: No products were found. Clean Water Act (CWA) 311: No products were found. Clean air act (CAA) 112 accidental release prevention: No products were found. Clean air act (CAA) 112 regulated flammable substances: No products were found. Clean air act (CAA) 112 regulated toxic substances: No products were found.
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WHMIS (Canada)	CLASS B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F). Class D-1A: Material causing immediate and serious toxic effects (VERY TOXIC).
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CEPA DSL: Glycerine; Methanol

This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all required information.

International Regulations

EINECS	Giemsa Stain	Not available.
	Glycerine	200-289-5
	Methanol	200-659-6

DSCL (EEC)	R11- Highly flammable. R26- Very toxic by inhalation. R24- Toxic in contact with skin. R37/38- Irritating to respiratory system and skin. R41- Risk of serious damage to eyes.
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International Lists Australia (NICNAS): Glycerine; Methanol

Japan (MITI): Glycerine; Methanol

Korea (TCCL): Glycerine; Methanol

Philippines (RA6969): Glycerine; Methanol

China: No products were found.

State Regulations

Pennsylvania RTK: Glycerine: (generic environmental hazard); Methanol: (environmental hazard, generic environmental hazard)

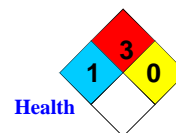
Massachusetts RTK: Glycerine; Methanol

New Jersey: Giemsa Stain Solution

California prop. 65: No products were found.

Section 16. Other Information

**National Fire
Protection
Association
(U.S.A.)**



Fire Hazard

Reactivity

Specific Hazard

**Changed Since Last
Revision**

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Notice to Reader

The statements contained herein are based upon technical data that EMD Chemicals Inc. believes to be reliable, are offered for information purposes only and as a guide to the appropriate precautionary and emergency handling of the material by a properly trained person having the necessary technical skills. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use, storage and disposal of these materials and the safety and health of employees and customers and the protection of the environment. EMD CHEMICALS INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE, WITH RESPECT TO THE INFORMATION HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS.