

Safety Data Sheet

1. IDENTIFICATION

Product Identifier: Giemsa Stain

Product Code(s): G1001

Synonyms: Mixture.

Recommended Use: For manufacturing, industrial, and laboratory use only. Use as a laboratory reagent.

Uses Advised Against: Not for food, drug, or household use.

Supplier: Rocky Mountain Reagents, Inc.
4621 Technology Drive, Golden, CO 80403
Phone: (303) 762-0800 Fax: (303) 762-1240

Emergency Phone Number: (800) 255-3924 (VelocityEHS)

2. HAZARDS IDENTIFICATION

Hazard Classifications:

| | |
|---|------------|
| Acute Toxicity – Oral: | Category 3 |
| Acute Toxicity – Dermal: | Category 3 |
| Acute Toxicity – Inhalation: | Category 4 |
| Specific Target Organ Toxicity (Single Exposure): | Category 1 |
| Flammable Liquids: | Category 3 |

Signal Word: DANGER

Hazard Statements:

- Toxic if swallowed.
- Toxic in contact with skin.
- Harmful if inhaled.
- Causes damage to organs.
- Flammable liquid and vapor.

Pictograms:



Precautionary Statements:

Prevention: Wash thoroughly after handling.

Do not eat, drink, or smoke when using this product.
Wear protective gloves, protective clothing, eye protection, and face protection.
Do not breathe fumes, mists, vapors, or spray.
Use only outdoors or in a well-ventilated area.
Keep away from heat, sparks, open flames, and hot surfaces. – No smoking.
Keep container tightly closed.
Ground container and receiving equipment.
Use explosion-proof electrical, ventilating, lighting, and transportation equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.

Response: If exposed: Call a poison center or doctor.
If swallowed: Immediately call a poison center or doctor. Rinse mouth.
If on skin (or hair): Wash with plenty of water. Take off immediately all contaminated clothing and wash it before reuse.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
In case of fire: Use water spray, dry powder, alcohol resistant foam, or carbon dioxide to extinguish.

Storage: Store locked up.
Store in a well-ventilated place. Keep cool.

Disposal: Dispose of contents and container in accordance with local, regional, national, and international regulations.

Hazards Not Otherwise Classified: Toxic to humans. Primates are especially susceptible to the toxic effects of methanol, which are not reflected through toxicity data (see Section 11).
May cause adverse reproductive effects.
May cause skin sensitization.

Toxicity Statement: Not applicable.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

| Component | Common Name / Synonyms | CAS# | Chemical Formula | % by Weight |
|--------------|------------------------|------------|--|-------------|
| Glycerin | Glycerol | 56-81-5 | C ₃ H ₈ O ₃ | 61.0 |
| Methanol | Methyl Alcohol | 67-56-1 | CH ₃ OH | 38.3 |
| Giemsa Stain | Azure II Mixture | 51811-82-6 | N/A | 0.736 |

Trade Secret Statement: Not applicable.

4. FIRST AID MEASURES

First Aid Procedures:

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. WARNING! It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious, or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention if symptoms occur.

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, keep head low so that vomit does not enter lungs. Never give anything by mouth to an unconscious person. Immediate medical attention is required. Get medical attention immediately.

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| Skin Contact: | Remove contaminated clothing and shoes. Wash skin with plenty of water for at least 15 minutes. Wash clothing before reuse. Get medical attention if symptoms occur. |
| Eye Contact: | Check for and remove contact lenses if present and easy to do. Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately. |
| General Advice: | Poison information centers in each state can provide additional assistance for scheduled poisons. Ensure that medical personnel and those providing first aid are aware of the material(s) involved and take precautions to protect themselves. |
| Symptoms and Effects: | Ingestion may cause nausea, vomiting, diarrhea, abdominal pain, impaired motor function, and blindness. Inhalation may cause drowsiness, dizziness, and impaired motor function. Contact with skin may cause irritation, impaired motor function, and blindness. Contact with eyes may cause irritation. Prolonged or repeated exposure may cause damage to several organ systems. |
| Immediate Medical Care/ Special Treatment: | If you feel unwell or are concerned, get medical attention immediately. Treat symptomatically. |

5. FIREFIGHTING MEASURES

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| Suitable Extinguishing Media: | Water spray, dry powder, alcohol resistant foam, carbon dioxide. |
| Unsuitable Extinguishing Media: | Do not use a solid (straight) water stream, as it may scatter and spread fire. |
| Hazardous Combustion Products: | Carbon oxides, sulfur oxides, nitrogen oxides, hydrogen bromide, hydrogen chloride. |
| Specific Hazards: | Flammable. Vapors may cause flash fire or ignite explosively. Burns vigorously if ignited easily by heat, sparks, or flames. May burn with an invisible flame. Sealed containers may explode when heated or involved in fire. Sensitive to static discharge. Vapor may travel considerable distance to source of ignition and flash back. Vapor from solvent may accumulate in container headspace, resulting in flammability hazard. Sealed containers may explode when heated or involved in fire. Excessive thermal conditions may cause thermal decomposition and yield corrosive and/or toxic fumes. |
| Special Protective Equipment/ Precautions for Firefighters: | As in any fire, wear MSHA/NIOSH-approved (or equivalent), self-contained, positive-pressure or pressure-demand breathing apparatus and full protective gear. Use water spray to cool unopened containers. Move containers from fire area, if you can do so without risk. This material may evaporate and leave a flammable residue if spilled. In the event of fire and/or explosion, do not breathe fumes. |

6. ACCIDENTAL RELEASE MEASURES

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| Personal Precautions and Protective Equipment: | Ventilate area of leak or spill. Isolate hazard area and keep unnecessary and unprotected personnel away from the area of the leak or spill. Keep upwind. Keep out of low areas. Wear appropriate personal protective equipment (see Section 8). Remove all sources of ignition. Pay attention to flashback. Take precautionary measures against static discharge. All equipment used when handling the product must be grounded. Use spark-proof tools and explosion-proof equipment. Avoid contact with eyes, skin, and clothing. |
| Emergency Procedures: | Evacuate surrounding personnel as needed. In case of chemical emergency, or if unsure how to address an accidental release, consult a professional (see Section 1). |

Methods for Containment: Eliminate all sources of ignition. Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements, or confined areas. Dike the spilled material, where this is possible. Product should not be released to the environment. Contain and recover liquid when possible.

Methods for Cleanup: Absorb spill with an inert material (e.g. vermiculite, dry sand, earth, cloth, or fleece) and place in a noncombustible container for reclamation or disposal. Do not flush to sewer. Clean contaminated surface thoroughly. Never return spills in original containers for reuse. Clean up in accordance with all applicable regulations.

7. HANDLING AND STORAGE

Handling: Do not handle, store, or open near an open flame, sources of heat, or sources of ignition. Wear personal protective equipment (see Section 8). Use only in well-ventilated areas. Provide sufficient air exchange and/or exhaust in work areas. Avoid contact with skin, eyes, and clothing. Do not breathe vapors or spray mist. Do not ingest. When using, do not eat, drink, or smoke. Take precautionary measures against static discharge. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from incompatible materials (see Section 10). Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. Containers of this material may be hazardous when empty, as they retain product residues. Observe all warnings and precautions listed for this product.

Storage: Store in a cool, dry, ventilated area. Store in a segregated and approved area away from heat, sources of ignition, and incompatible materials (see Section 10). Store in original container. Keep containers tightly closed and upright. Keep away from food, drink, and animal foodstuffs. Keep out of the reach of children. Ground container and transfer equipment. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of this product.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits:

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|-----------|--------------|----------------------|
| Glycerin: | ACGIH (TLV): | 10 mg/m ³ |
| | OSHA (PEL): | 15 mg/m ³ |

| | | |
|-----------|---------------|---------|
| Methanol: | ACGIH (TWA): | 200 ppm |
| | ACGIH (STEL): | 250 ppm |
| | OSHA (PEL): | 200 ppm |

Giemsa Stain: No information found.

Engineering Controls: Ensure adequate ventilation. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Measures:

Eye/Face Protection: Wear safety glasses with side shields or goggles and a face shield. Maintain approved eyewash station and accessible rinse facilities in work area.

Skin Protection: Wear appropriate chemical resistant clothing (with long sleeves) and appropriate chemical resistant gloves.

Respiratory Protection: An air-purifying, NIOSH-approved respirator with appropriate cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to

exceed exposure limits. Use a positive-pressure, air-supplied respirator if there is any potential for an uncontrolled release, if exposure levels are unknown, or if any other circumstances exist where air-purifying respirators may not provide adequate protection.

**Specific Requirements
for Personal Protective
Equipment:**

Ensure that glove material is compatible with this product. This information is available from glove manufacturers.

9. PHYSICAL AND CHEMICAL PROPERTIES

Unless otherwise indicated, all properties are given at 25 °C and standard pressure.

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|---|-----------------------------|
| Appearance: | Dark purple, opaque liquid. |
| Odor: | No information found. |
| Odor Threshold: | No information found. |
| Formula Weight: | Mixture. |
| pH: | No information found. |
| Melting/Freezing Point: | < 15 °C |
| Boiling Point/Range: | 177 °C (estimated) |
| Decomposition Temperature: | No information found. |
| Flash Point: | 25 – 30 °C (estimated) |
| Auto-ignition Temperature: | No information found. |
| Flammability: | Flammable liquid and vapor. |
| Flammability/Explosive Limits: | No information found. |
| Solubility: | Miscible with water. |
| Vapor Pressure: | No information found. |
| Vapor Density: | No information found. |
| Specific Gravity: | 1.126 (Water = 1) |
| Evaporation Rate: | No information found. |
| Viscosity: | No information found. |
| Partition Coefficient (n-octanol/water): | No information found. |

10. STABILITY AND REACTIVITY

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| Reactivity Data: | Flammable (see Section 9). |
| Chemical Stability: | Stable under normal conditions. Hygroscopic. |
| Conditions to Avoid: | Heat, flames, sources of ignition, moisture, incompatible materials. |
| Incompatible Materials: | Oxidizers, metals, reducing agents, strong bases, acids. |
| Hazardous Decomposition Products: | Carbon oxides, sulfur oxides, nitrogen oxides, hydrogen bromide, hydrogen chloride. |
| Possibility of Hazardous Reactions: | May react vigorously, violently, or explosively if exposed to extreme thermal conditions or in contact with the incompatible materials listed above. |

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Routes of Exposure: Inhalation, ingestion, skin contact, eye contact.

Acute Effects: May be fatal if swallowed or absorbed through the skin. Harmful if inhaled. Causes irritation to the eyes, skin, respiratory tract, and gastrointestinal tract. May cause visual disturbances or blindness if absorbed into the blood stream. May affect the blood, brain, urinary system, liver, spleen, eyes, kidneys, cardiovascular system, and pancreas.

Chronic Effects: May cause central nervous system effects. May cause damage to eyesight. Prolonged or repeated exposure may cause liver, kidney, brain, cardiovascular system, blood, spleen, and heart damage as well as adverse reproductive effects, mutagenic effects, and dermatitis.

Toxicological Data:

| | | |
|-----------|---|----------------|
| Glycerin: | LD ₅₀ Oral, Rat: | 12,600 mg/kg |
| | LD ₅₀ Dermal, Rabbit: | > 10,000 mg/kg |
| | Causes mild eye and skin irritation based on animal data. | |

| | | |
|-----------|-----------------------------------|---------------|
| Methanol: | LD ₅₀ Oral, Rat: | 5628 mg/kg |
| | LC ₅₀ Inhalation, Rat: | 87.6 mg/L 6 h |
| | LD ₅₀ Dermal, Rabbit: | 15,800 mg/kg |
| | LDL Oral, Human: | 143 mg/kg |

Giemsa Stain: No information found.

Symptoms of Exposure: Irritation, unconsciousness, visual disturbances, metabolic acidosis, drowsiness, dizziness, suffocation, shortness of breath, nervous system effects, cardiovascular effects, cough, nausea, vomiting, diarrhea, abdominal pain, constipation, blindness, and respiration effects.

Carcinogenic Effects: No component of this product is considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

12. ECOLOGICAL INFORMATION

Ecotoxicological Data:

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| Glycerin: | No information found. | |
|-----------|-----------------------|--|

| | | |
|-----------|---|--------------------|
| Methanol: | EC ₅₀ , Water Flea (<i>Daphnia magna</i>): | > 10,000 mg/L 48 h |
| | LC ₅₀ , Fathead Minnow (<i>Pimephales promelas</i>): | > 100 mg/L 96 h |

Giemsa Stain: No information found.

Persistence and Degradability: Expected to be readily biodegradable.
Bioconcentration Factor: Methanol: 1.0

Environmental Effects: Not expected to be hazardous to the environment. However, the possibility of an environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

13. DISPOSAL INFORMATION

Disposal Instructions: All wastes must be handled in accordance with local, state, and federal regulations. Minimize exposure to product waste (see Section 8). Do not dispose unused waste down drains or into sewers.

Contaminated Packaging: Because emptied containers retain product residue, follow label warnings even after container is emptied. Offer rinsed packaging material to local recycling facilities.

Waste Codes: Methanol: U154 (US RCRA Hazardous Waste U List – Ignitable Waste)

14. TRANSPORT INFORMATION

DOT:

UN Number: UN1993

Proper Shipping Name: Flammable liquids, n.o.s. (Methanol)

Hazard Class: 3

Packing Group: II

ERG Number: 128

Environmental Hazard Regulations: No information found.

Other Transport Precautions: DOT Reportable Quantity: Methanol: 5000 lb

15. REGULATORY INFORMATION

U.S. Federal Regulations:

OSHA: This product is considered a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Inventory: All components of this product are on the U.S. TSCA Inventory.

U.S. EPCRA (SARA Title III):

Section 302: No information found.

Sections 311/312:

| Hazard Category | List (Yes/No) |
|----------------------------------|---------------|
| Section 311 – Hazardous Chemical | Yes |
| Immediate Hazard | Yes |
| Delayed Hazard | Yes |
| Fire Hazard | Yes |
| Pressure Hazard | No |
| Reactivity Hazard | No |

Section 313: Methanol

CERCLA Reportable Quantities: Methanol: 5000 lb

International Inventories:

| Country or Region | Inventory Name | On Inventory (Yes/No)* |
|-------------------|--|------------------------|
| Australia | Australian Inventory of Chemical Substances (AICS) | N/A |
| Canada | Domestic Substances List (DSL) | N/A |
| Canada | Non-Domestic Substances List (NDSL) | N/A |
| China | Inventory of Existing Chemical Substances in China (IECSC) | N/A |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | N/A |
| Europe | European List of Notified Chemical Substances (ELINCS) | N/A |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | N/A |
| Korea | Existing Chemicals List (ECL) | N/A |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | N/A |

*A "Yes" indicates that the listed component(s) of this product comply with the inventory requirements administered by the governing country(s).

16. OTHER INFORMATION**Disclaimer:**

Rocky Mountain Reagents, Inc. provides the information in this Safety Data Sheet in the belief that it is reliable but assumes no responsibility for its completeness or accuracy. The physical properties reported in this SDS are obtained from literature and do not constitute product specifications. Rocky Mountain Reagents, Inc. makes and gives no representations or warranties with respect to the information contained herein or the product to which it refers, whether express, implied, or statutory, including without limitation, warranties of accuracy, completeness, merchantability, non-infringement, performance, safety, suitability, stability, and fitness for a particular purpose. No warranty against infringement of any patent, copyright or trademark is made or implied. This SDS is intended only as a guide to the appropriate handling of the material by a properly trained person. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. Accordingly, Rocky Mountain Reagents, Inc. assumes no liability whatsoever for the use of or reliance upon this information including results obtained, incidental or consequential damages, or lost profits.

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Reason for Revision:

Update of Section 9 over 04/18/2016 version.