
1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Giemsa Stain (Modified)
Catalog Number: SG45
Product Use: For laboratory use only

Manufacturer's Name: Dalynn Biologicals Inc.
Supplier's Name: Dalynn Biologicals Inc.
Address: 3253 – 34 Avenue NE
Calgary, AB, Canada
T1Y 6X2

Telephone: 1-888-404-4045
Fax: (403) 250-9010
Chemical Emergency: 1-613-996-6666
Phone Number Only

2. HAZARD IDENTIFICATION**Emergency Overview****GHS Classification**

Flammable liquids (Category 2)
Acute toxicity, Oral (Category 3)
Acute toxicity, Inhalation (Category 3)
Acute toxicity, Dermal (Category 3)
Eye irritation (Category 2A)
Skin sensitization (Category 1)
Specific target organ toxicity – single exposure (Category 1), Eyes, CNS

GHS Label Elements, Including Precautionary Statements

Pictogram



Signal word

Danger

Hazard statement(s)

H225 Highly flammable liquid and vapor.
H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled.
H317 May cause an allergic skin reaction.
H319 Causes serious eye damage.
H370 Causes damage to organs (eyes, central nervous system)

Precautionary statement(s)

P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition Sources. No smoking.

P233	Keep container tightly closed.
P241	Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P310 + P330	IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. Rinse mouth.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
P308 + P313	If exposed or concerned: Get medical advice/ attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P361 + P364	Take off immediately all contaminated clothing and wash it before reuse.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

3. COMPOSITION & INFORMATION ON INGREDIENTS

INGREDIENT	%	CAS-No.	EC-No.	Index-No.
Methanol	60	67-56-1	200-659-6	603-001-00-X
1,2-Propanediol	30 - 35	57-55-6	200-338-0	-
BIS-TRIS	1 - 4	6976-37-0	230-237-7	-
Diethylammonium chloride	0.1	660-68-4	211-541-9	-
Eosin G	0.1	17372-87-1	241-409-6	-

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move affected individual out of affected area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Take victim to hospital and consult a physician.

In case of skin contact

Take off contaminated clothing. Wash affected area with soap and plenty of water. Take victim to hospital and consult a physician.

In case of eye contact

Flush eyes with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Rinse mouth with water if patient is conscious. Make victim drink ethanol (e.g. 1 drinking glass of a 40% alcoholic beverage). Call a doctor immediately (mention methanol ingestion). Only in exceptional cases, if no medical care is available within one hour, induce vomiting (only in fully conscious persons) and make victim drink ethanol again (approx. 0.3 ml of a 40% alcoholic beverage/kg body weight/hour). Take patient to hospital and consult a physician.

5. FIREFIGHTING MEASURES**Conditions of flammability**

Methanol is highly flammable. The agent will be easily ignited by heat, sparks, or flames. Vapors may travel to the source of ignition and flash back.

Suitable extinguishing media

Use alcohol-resistant foam, dry chemical or carbon dioxide. Use water spray to cool fire-exposed containers. Water will not cool methanol below its flash point.

Special protective equipment for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions: carbon oxides (ie. carbon dioxides, carbon monoxide), nitrogen oxides

Explosion data – sensitivity to mechanical impact

No

Explosion data – sensitivity to static discharge

Yes

6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Wearing appropriate safety gear including chemical resistant gloves and dust mask or respirator, soak up with liquid absorbent material (e.g. Chemisorb). Place in a sealed container and hold for disposal.

7. HANDLING AND STORAGE**Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Use in area with adequate Ventilation or work under a hood.

Conditions for safe storage

Keep container tightly closed in a well ventilated place away from direct light or sunlight. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorized persons. Storage class (TRGS 510): 3: Flammable liquids

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Methanol	67-56-1	TWA	200 ppm 262 mg/m ³	Canada. Alberta. Occupational Health and Safety Code (table 2: OEL)
Remarks	Substance may be readily absorbed through intact skin			
		STEL	250 ppm 328 mg/m ³	
	Contributes significantly to the overall exposure by the skin route			
		TWA	200 ppm	Canada. British Columbia OEL
	Contributes significantly to the overall exposure by the skin route			
		STEL	250 ppm	Canada. British Columbia OEL
	Contributes significantly to the overall exposure by the skin route			
		TWAEV	200 ppm 262 mg/m ³	Canada. Quebec. Regulation respecting occupational health and safety, schedule 1, Part 1
	Skin (percutaneous)			
		STEV	250 ppm 328 mg/m ³	Canada. Quebec. Regulation respecting occupational health and safety, schedule 1, Part 1
	Skin (percutaneous)			
		TWA	200 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	250 ppm	USA. ACGIH Threshold Limit Values (TLV)
1,2-Propanediol	57-55-6	TWA	50 ppm 155 mg/m ³	Ontario Table of Occupational Exposure Limits made under the Occupational Health and Safety Act.

Engineering measures

Ensure adequate ventilation especially in confined areas. If desired, use mechanical exhaust or laboratory fumehood to avoid exposure.

Personal protective equipment

Respiratory protection

Use in area with adequate ventilation. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type ABEK (EN14387) respirator cartridges as a backup to engineering controls. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands after use.

Eye protection

Face shield and/or safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166 (EU).

Skin and body protection

Wear appropriate clothing such as a lab coat that covers as much of the body as possible. Complete suit can also be worn if desired.

Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form	Liquid
Color	Pinkish-red with slight alcoholic odor

Safety data

pH	No data available
Melting point/ freezing point	No data available
Boiling point	No data available
Flash point	11°C (52°F) – closed cup
Ignition temperature	No data available
Auto ignition temperature	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapor pressure	No data available
Density	No data available
Water solubility	soluble
Partition coefficient/ n-octanol/water	No data available
Relative vapor density	No data available
Odour	No data available
Odour threshold	No data available
Evaporation rate	No data available

10. STABILITY AND REACTIVITY**Reactivity**

Vapors may form explosive mixture with air

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

Possibility of hazardous reactions

No data available

Materials to avoid

Oxidizing agents, acids, acid anhydrides, alkali metals, reducing agents

Hazardous decomposition products

Other decomposition products – No data available

Hazardous decomposition products formed under fire conditions – Carbon oxides, nitrogen oxides

Hazardous polymerization

Hazardous polymerization does not occur

Hazardous reactions

None under normal processing

11. TOXICOLOGICAL INFORMATION**Acute toxicity****Oral LD50**

LD50 Oral – Rat – 5,628 mg/kg (methanol)

LD50 Oral – Rat – 22,000 mg/kg (1,2-propanediol)

Inhalation LC50

LD50 Inhalation – Rat – 4h – 64,000 ppm (methanol)

Dermal LD50

LD50 Dermal – Rabbit – 15,800 mg/kg (methanol)

LD50 Dermal – Rabbit – 2,000 mg/kg (1,2-propanediol)

Other information on acute toxicity

No data available

Skin corrosion/irritation

Skin – Rabbit – No skin irritation – ECHA (methanol)

Skin – Rabbit – No skin irritation – 4h – OECD Test Guidelines 404 (1,2-propanediol)

Serious eye damage/eye irritation

Eye – Rabbit – No eye irritation – ECHA (methanol)

Eye – Rabbit – No eye irritation – OECD Test Guidelines 405 (1,2-propanediol)

Respiratory or skin sensitization

Sanitization test – Guinea pig – negative result - OECD Test Guidelines 406 (methanol)

Sanitization test – Guinea pig – negative result - OECD Test Guidelines 406 (1,2-propanediol)

Germ cell mutagenicity

Based on available data the classification criteria are not met

Carcinogenicity

This table below indicates whether each agency has listed any ingredient as a carcinogen

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Methanol	67-56-1	Not listed	Not listed	Not listed	Not listed	Not listed
1,2-Propanediol	57-55-6	Not listed	Not listed	Not listed	Not listed	Not listed
BIS-TRIS	6976-37-0	Not listed	Not listed	Not listed	Not listed	Not listed
Diethylammonium chloride	660-68-4	Not listed	Not listed	Not listed	Not listed	Not listed
Eosin G	17372-87-1	Not listed	Not listed	Not listed	Not listed	Not listed

IARC: (International Agency for Research on Cancer)

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans Group
2A - Probably Carcinogenic to Humans Group
2B - Possibly Carcinogenic to Humans

NTP: (National Toxicity Program)

NTP: (National Toxicity Program)

Known - Known Carcinogen

ACGIH: (American Conference of Governmental Industrial Hygienists)

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

ACGIH: (American Conference of Governmental Industrial Hygienists)

A1 - Known Human Carcinogen

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

Reproductive toxicity

No data available

Teratogenicity

No data available

Specific target organ toxicity – single exposure (GHS)

No data available

Specific target organ toxicity – repeated exposure (GHS)

May cause damage to organs through prolonged or repeated exposure

Aspiration hazard

No data available

Potential Health Effects

Inhalation

May be toxic if inhaled. Material is destructive to the tissue of the mucous membranes and upper respiratory tract. Symptoms listed under ingestion may also occur.

Skin

May be harmful or toxic if absorbed through skin. May causes skin irritation or burns depending on duration. Rapidly absorbed with systemic poisoning effects to follow.

Eyes

May cause eye irritation or burns on contact.

Ingestion

Toxic if swallowed in sufficient quantity. Keep in mind that the main component in this product is water and the hazardous symptoms described are from exposure to phenol and denatured ethanol therefore negative health effects are expected but muted given the diluted nature of the mixture. Symptoms of exposure include abdominal pain, nausea, vomiting headache dizziness, muscular weakness, CNS effects, increase in heart rate, irregular breathing, coma, and possibly death.

Signs and Symptoms of Exposure

The initial symptoms of methanol intoxication include central nervous system depression, headache, dizziness, nausea, lack of coordination, and confusion. Sufficiently large doses cause unconsciousness and death. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects

No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Methanol	Not listed	Fathead minnow (Pimephales promelas) LC50 = 10,000 mg/L/96h	EC50 = 39,000 mg/L/25 min EC50 = 40,000 mg/L/15 min EC50 = 43,000 mg/L/5 min	EC50 > 10,000 mg/L/24h
1,2-Propanediol	EC50: = 19000 mg/L, 96h (Pseudokirchneriella subcapitata)	LC50: 41 - 47 mL/L, 96h static (Oncorhynchus mykiss) LC50: = 51400 mg/L, 96h static (Pimephales promelas) LC50: = 51600 mg/L, 96h static (Oncorhynchus mykiss) LC50: = 710 mg/L, 96h (Pimephales promelas)	EC50 = 710 mg/L Photobacterium phosphoreum 30 min	EC50: > 1000 mg/L, 48h Static (Daphnia magna)

Persistence and degradability

Miscible with water persistence is unlikely based on information available.

Bioaccumulative potential

No data available

Mobility in soil

No data available

PBT and vPvB assessment

No data available

Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN Number: 1230 Class: 3 (6.1) Packing Group: II
Proper Shipping Name: Methanol Solution
Marine Pollutant: No

IMDG

UN Number: 1230 Class: 3 (6.1) Packing Group: II EMS-No: F-E, S-D
Proper Shipping Name: Methanol Solution

IATA

UN Number: 1230 Class: 3 (6.1) Packing Group: II
Proper Shipping Name: Methanol Solution

15. REGULATORY INFORMATION

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by them.

16. OTHER INFORMATION

Further information

Copyright 2022 Dalynn Biologicals Inc. The above information is believed to be correct but does not purport to be all inclusive and shall be only used as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Dalynn Biologicals Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.
