DALYNN BIOLOGICALS

SAFETY DATA SHEET Version 1.6 Revision Date 02/06/2024

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:	Methyl Red Reagent
Catalog Number:	RM65
Product Use:	For laboratory use only
Manufacturer's Name: Supplier's Name: Address:	Dalynn Biologicals Inc. Dalynn Biologicals Inc. 3253 – 34 Avenue NE Calgary, AB, Canada T1Y 6X2
Telephone:	1-888-404-4045
Fax:	(403) 250-9010
Chemical Emergency: Phone Number Only	1-613-996-6666

2. HAZARD IDENTIFICATION

Emergency Overview

GHS Classification

Flammable liquids (Category 2) Eye irritation (Category 2A)

GHS Label Elements, Including Precautionary Statements

Pictogram



Signal word

Danger

Hazard statement(s))
-------------------	----	---

H225	Highly flammable liquid and vapor.
H301	Harmful if swallowed.
H319	Causes serious eye irritation.

Precautionary statement(s)

· · · · · · · · · · · · · · · · · · ·	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition
	sources. No smoking.
P233	Keep container tightly closed
P261	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264	Wash skin thoroughly after handling.
P280	Wear protective gloves & clothing/ eye protection/ face protection.
P310	Immediately call a poison center or doctor.
P302+P352	If on skin: Wash with plenty of water.
P305+P351+P338	If in eyes: rinse cautiously with water for several minutes. Remove contact
	lenses, if present and easy to do so. Continue rinsing.

3. COMPOSITION & INFORMATION ON INGREDIENTS

INGREDIENT	%	CAS-No.	EC-No.	Index-No.
Methyl red	0.02	493-52-7	207-776-1	-
Ethanol	60	64-17-5	200-578-6	603-002-00-5
Water	~40	7732-18-5	231-791-2	-

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. Consult a physician.

In case of skin contact

Take off contaminated clothing. Wash affected area with soap and plenty of water. Consult a physician.

In case of eye contact

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

If swallowed

Do not induct vomiting. Rinse mouth with water if patient is conscious. Take patient to hospital and consult a physician.

5. FIREFIGHTING MEASURES

Conditions of flammability

Flammable in the presence of an ignition source when the temperature is above the flash point. Keep away from heat, sparks, or open flame. No smoking.

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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)

Explosion data – sensitivity to mechanical impact

No data available.

Explosion data – sensitivity to static discharge No data available.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to explosive concentrations.

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 paper or cloth towels and 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. Keep away from sources of ignition. No smoking.

Conditions for safe storage

Keep container tightly closed in a well ventilated place away from ignition sources.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Ethanol	64-17-5	TWA	1,000 ppm 1,880 mg/m3	Canada. Alberta. Occupational Health and Safety Code (table 2:OEL)
		TWA	1,000 ppm	Canada. British Columbia OEL
		STEL	1,000 ppm	Canada. British Columbia OEL
		TWAEV	1,000 ppm 1,900 mg/m3	Canada. Ontario OELs
		TWAEV	1,000 ppm 1,880 mg/m3	Canada. Quebec. Regulation respecting occupational health and safety, schedule 1, Part 1
		TWA	1,000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	1,000 ppm	USA. ACGIH Threshold Limit Values (TLV)

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	Orange	e-red
Safet	y data		
	рН		No data available
	Melting point/ freezing point		-114°C (173°F) - ethanol
	Boiling point		No data available
	Flash point		14°C (57.2°F) cc - ethanol
	Ignition temperature		363°C (685°F) - ethanol
	Auto ignition temperatu	re	363°C (685°F) - ethanol
	Lower explosion limit		3.3% (V) - ethanol
	Upper explosion limit		19% (V) - ethanol
	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

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions Vapors may form explosive mixture with air.

Materials to avoid

Oxidizing agents, strong bases, strong acids, aldehydes, silver salts

Hazardous decomposition products

Other decomposition products – No data available Hazardous decomposition products formed under fire conditions – Carbon oxides

11. TOXICOLOGICAL INFORMATION

Acute toxicity Oral LD50 LD50 Oral – Rat – 10,470 mg/kg (ethanol)

Inhalation LC50

LD50 Inhalation - Rat - 4h - 30,000 mg/l (ethanol)

Dermal LD50

LD50 Dermal - Rabbit - 15,800 mg/kg (ethanol)

Other information on acute toxicity

No data available

Skin corrosion/irritation

Skin – Rabbit – No skin irritation – 24h – OECD Test Guidelines 404 (ethanol)

Serious eye damage/eye irritation

Eye - Rabbit - Moderate eye irritation - OECD Test Guidelines 405 (ethanol)

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

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

		<u> </u>	, ,		<u> </u>	
Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Methyl red	493-52-7	Not listed				
Ethanol	64-17-5	Group 1	Known	A3	Х	Not listed

Reproductive toxicity

Reproductive toxicity – Human – Female (Oral) (Ethanol) Effects on newborn – Apgar score, drug dependence (Ethanol)

Teratogenicity

No data available

Specific target organ toxicity – single exposure (GHS) No data available

Specific target organ toxicity – repeated exposure (GHS)

No data available

Aspiration hazard

No data available

Potential Health Effects

Inhalation	May be harmful if inhaled. May cause respiratory tract inflammation.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Eyes	Causes eye irritation on contact.
Ingestion	Harmful if swallowed. Causes GI disturbances, nausea, dizziness and vomiting.
	Alcohol swallowed in sufficient quantity can cause blindness and death.

Signs and Symptoms of Exposure

CNS depression, narcosis, damage to the heart. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects

No data available

Additional information

No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Ethanol	EC50 (72h) = 275 mg/L (Chorella vulgaris)	Fathead minnow (Pimpehales promelas) LC50 = 14,200 mg/L/96h	Photobacterium phosphoreum: EC50 = 34,634 mg/L/30 min Photobacterium phosphoreum: EC50 = 35,470 mg/L/5 min	EC50 = 9,268 mg/L/48h EC50 = 10,800 mg/L/24h

Persistence and degradability

Persistance 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: 1170 Class: 3 Packing Group: II Proper Shipping Name: Ethanol Solution Marine Pollutant: No Poison Inhalation Hazard: No

IMDG

UN Number: 1170 Class: 3 Packing Group: II EMS-No: F-E, S-D Proper Shipping Name: Ethanol Solution Marine Pollutant: No

ΙΑΤΑ

UN Number: 1170 Class: 3 Packing Group: II Proper Shipping Name: Ethanol 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 2021 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.