1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:	Iron Hematoxylin Stain
Catalog Number:	SI71
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: Phone Number Only	1-613-996-6666

2. HAZARD IDENTIFICATION

Emergency Overview

GHS Classification

Flammable liquids (Category 2)
Eye irritation (Category 2A)
Acute aquatic toxicity (Category 2)

GHS Label Elements, Including Precautionary Statements

Pictogram

Signal word	Danger

Hazard statement(s)

H225	Highly flammable liquid and vapor.
H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H401	Toxic to aquatic life

Precautionary statement(s)

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed
P242	Use non-sparking tools.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264	Wash skin thoroughly after handling.
P273	Avoid release to the environment.
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.
Ethanol	~80	64-17-5	200-578-6	603-002-00-5
Methanol	~8	67-56-1	200-659-6	603-001-00-X
Hematoxylin	1	517-28-2	208-237-3	-

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, 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
Methanol	67-56-1	TWA	200 ppm 262 mg/m3	Canada. Alberta. Occupational Health and Safety Code (table 2:OEL)
		STEL	250 ppm 328 mg/m3	Canada. Alberta. Occupational Health and Safety Code (table 2:OEL)
		TWA	200 ppm	Canada. British Columbia OEL
		STEL	250 ppm	Canada. British Columbia OEL
		STEV	250 ppm 328 mg/m3	Canada. Quebec. Regulation respecting occupational health and safety, schedule 1, Part 1
		TWAEV	200 ppm 262 mg/m3	Canada. Quebec. Regulation respecting occupational health and safety, schedule 1, Part 1
		TWA	200 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	250 ppm	USA. ACGIH Threshold Limit Values (TLV)
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	Brown, murky

Safety data

pH	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 temperature	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, reducing agents, alkali metals, peroxides, phosphorus oxychloride, chromic anhydride, chlorinated solvents

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

Inhalation LC50
LD50 Inhalation – Rat – 4h - 30,000 mg/l (ethanol)
LD50 Inhalation – Rat – 4h – 131.25 mg/L (methanol)

Dermal LD50
LD50 Dermal – Rabbit – 15,800 mg/kg (ethanol)
LD50 Dermal – Rabbit – 17,100 mg/kg (methanol)

Other information on acute toxicity
No data available

Skin corrosion/irritation
Skin – Rabbit – No skin irritation – 24h – OECD Test Guidelines 404 (ethanol)
Skin – Rabbit – No skin irritation – ECHA (methanol)

Serious eye damage/eye irritation
Eye – Rabbit – Moderate eye irritation – OECD Test Guidelines 405 (ethanol)
Eye – Rabbit – No eye irritation – ECHA (methanol)

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

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Methanol	67-56-1	Not listed	Not listed	Not listed	Not listed	Not listed
Ethanol	64-17-5	Group 1	Known	A3	X	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. Causes respiratory tract inflammation. Vapors may cause drowsiness and dizziness.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation on contact.
Ingestion	May be harmful if swallowed. Causes GI disturbances, nausea, dizziness and vomiting. Alcohol swallowed in sufficient quantity can cause blindness, kidney damage 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
RTECS: PC1400000, KQ6300000

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
Methanol	Not available	Oncorhynchus mykiss: LC50 = 19.500 mg/l 96h Pimephales promelas: LC50 = 28,200 mg/l 96h	Not available	EC50 = 18,260 mg/L/96h

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

TDG (Canada)
UN Number: 1170 Class: 3 Packing Group: II
Proper Shipping Name: Ethanol Solution

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

IATA
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 Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

16. OTHER INFORMATION

Further information

 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.