Safety Data Sheet

PhThalo BLUE Solution

SDS-10276 Rev. Number: 2 Rev. Date: Feb 26, 2021

1. PRODUCT AND COMPANY IDENTIFICATION

Product Description:	Product Code
HistoMark® PhThaloBLUE Solution	5510-0037 (71-00-03)

Hazardous Reagent

HistoMark® PhThaloBLUE Solution

Hazardous Reagent Product code

Catalog No. listed above

Recommended Use: Reagent

Contact Manufacturer:
KPL, Inc.
910 Clopper Road
Gaithersburg, Maryland
20878 USA

Phone #: 1 (301) 948-7755

Fax #: 1 (301) 948-0169

Web: www.kpl.com

Email: kplmsds@seracare.com

Emergency Telephone Numbers:

AUSTRALIA – POISONS INFORMATION CENTER	Telephone:	13 11 26 - Hours: 24 hours
CANADIAN TRANSPORT EMERGENCY CENTER	Telephone:	(1) 613 996 6666 - Hours: 24 hours/day, 7 days/week
UK – THE NATIONAL FOCUS	Telephone:	(44) 029 2041 6388 - Hours: 09:00-17:00 GMT
USA - NATIONAL RESPONSE CENTER	Telephone:	(1) 800 424 8802 - Hours: 24 hours/day, 7 days/week

CHEMTREC:
CHEMTREC Customer Number: - CCN12505*
For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night
Within USA and Canada: 1-800-424-9300 CCN12505 or
+1 703-527-3887 (collect calls accepted)

2. HAZARD IDENTIFICATION

Hazard Type

Health Hazard: Data for 100% Diethylene Glycol: Harmful if swallowed, Causes damage to kidneys if swallowed, May cause drowsiness or dizziness

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

GHS Classification

Annex I Index# : 603-140-00-6

	Substance Name in Annex 1: 2, 2' -oxybisethanol diethylene glycol Classification: Acute Tox. 4
Hazard Statements:	H302: Harmful if swallowed.
Precautionary Statements:	P264: Wash skin thoroughly after handling. P270: Do not eat, drink or smoke when using this product.
Symbols and Indications of Danger:	GHS07: Warning

Principle Route of Exposure:	The substance can be absorbed into the body by ingestion.
Acute Effects: Eye	None
Acute Effects: Skin:	None
Acute Effects: Inhalation:	A harmful contamination of the air will not or will only very slowly be reached on evaporation of this substance at 20°C; on spraying or dispersing, however, much faster.
Inhalation Risk:	
Short-Term Exposure	The substance may cause effects on the kidneys , resulting in kidney impairment The substance may cause effects on the central nervous system and liver by ingestion . Exposure by ingestion may result in death.
Long-Term Exposure	Not Available
Ingestion:	Abdominal pain. Nausea. Vomiting. Diarrhoea. Dizziness. Drowsiness. Confusion. Unconsciousness.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CHEMICAL	% Weight	CAS #:
HistoMark® PhThaloBLUE Solution	2,2' -oxybisethanol diethylene glycol	80%	111-46-6
	Hydrochloric Acid	3.3%	7647-01-0

GHS Classification	Annex I Index# : 603-140-00-6
	Substance Name in Annex 1 : 2,2' -oxybisethanol diethylene glycol Classification: Acute Tox. 4

4. FIRST AID MEASURES

General Advice:	Seek medical attention
Oral Exposure:	May be harmful if swallowed. Give one or two glasses of water to drink. Refer immediately for medical attention. See Notes. 007
Inhalation Exposure:	May cause irritation to the respiratory tract. Fresh air, rest.
Skin Exposure:	Absorption through skin may occur. May cause irritation to the skin Rinse skin with plenty of water or shower.

Eye Exposure: Direct contact with product may result in eye irritation.
Rinse with plenty of water (remove contact lenses if easily possible).

5. FIRE FIGHTING MEASURES

Extinguishing media: Water Foam Carbon dioxide (CO2) Dry powder

Unusual Fire and Explosive Hazards: Combustible.

Flash Point: 138 °C (280 °F)

Auto ignition Temperature: 372 °C (702 °F) at 1,013.25 hPa

Flammability Statement: NO open flames.

Specific hazards arising from the chemical: Reacts violently with strong oxidants causing fire and explosion hazard. Attacks some forms of plastic.

Protective equipment and precautions for firefighters: Powder, alcohol-resistant foam, water spray, carbon dioxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Should not be released into the environment.

Method of Containment Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Method of Clean-up Wash away spilled liquid with plenty of water.

Other Information: Data for 100% Diethylene Glycol: Personal protection: filter respirator for organic gases and vapours adapted to the airborne concentration of the substance.

Data for 100% Hazardous Chemical

SPILLAGE DISPOSAL Personal protection: filter respirator for organic gases and vapours adapted to the airborne concentration of the substance. Collect leaking liquid in sealable containers. Wash away spilled liquid with plenty of water.

7. HANDLING AND STORAGE

Handling: Handle in accordance with good industrial hygiene and safety practice.

Storage: Store at room temperature. Data for 100% Diethylene Glycol: Dry. Well closed. Separated from strong oxidants.

Data for 100% Hazardous Chemical

STORAGE Dry. Well closed. Separated from strong oxidants

8. EXPOSURE CONTROL

Data for 100% Hazardous Chemical

Respiratory Protection: Ventilation.

Eye Protection: Safety spectacles.

Skin Protection:	Protective gloves.
Ingestion:	Do not eat, drink, or smoke during work.
Engineering Controls	Appropriate engineering controls
	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
	Personal protective equipment:
	Eye/face protection -
	Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
	Skin 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.
	Full contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min
	Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M) Splash contact Material: Nitrile rubber
	Minimum layer thickness: 0.11 mm

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear with a pink-brown tint solution
Physical State:	Liquid
Odor:	Not Applicable
Odor Threshold:	Not Applicable
pH:	< 2.0 6 - 8 Temperature: 20 °C Concentration: 200 g/l
Boiling Point:	244 °C
Melting Point:	-6.5°C
Evaporation Rate:	No data available
Vapor Density:	(air = 1): 3.7
Vapor Pressure:	Pa at 20°C: 2.7
Relative Density:	(water= 1): 1.12
Auto-Ignition Temperature:	229°C
Water Solubility:	miscible
Flammability:	No data available
Flash Point:	124°C c.c.
Viscosity:	No data available
Oxidizing Properties:	No data available

Explosive Properties:	vol% in air: 1.6-10.8
Additional Parameters	See Datasheet/Product Insert for other Product Information.
Octanol/water partition coefficient as log Pow:	1.47

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions
Conditions to avoid:	Heating in air. Exposure to moisture. Strong heating.
Incompatibility Materials to Avoid:	Strong oxidants.
Hazardous Decomposition Products:	Upon evaporation of water, toxic gases and vapors may be released if involved in a fire.
Hazardous Polymerization:	Will not occur
Possibility of hazardous reactions:	Reacts violently with strong oxidants causing fire and explosion hazard. Attacks some forms of plastic.
PHYSICAL DANGERS:	Not available.

11. TOXICOLOGY MEASURES

Acute Toxicity

The toxicological risks are minor due to the low concentration of hazardous ingredients. The following toxicological information is for the hazardous ingredient in pure form.

LD50 Oral:	LD50 oral rat: 12600 mg/kg Reference: Raw Material Data Handbook, Vol.1: Organic Solvents, 1974. Vol. 1, Pg. 25, 1974.
LD50 Dermal:	LD50 dermal rat/rabbit: 11900 mg/kg Species: Rabbit Reference: Raw Material Data Handbook, Vol.1: Organic Solvents, 1974. Vol. 1, Pg. 25, 1974.
LC50 Inhalation:	LC50 Fish (96 hours) Minimum: 75200 mg/l Maximum: 75200 mg/l Median: 75200 mg/l Study number: 1 Reference: Geiger, D.L., L.T. Brooke, and D.J. Call 1990. Acute Toxicities of Organic Chemicals to Fathead Minnows (Pimephales promelas), Volume 5. Ctr.for Lake Superior Environ.Stud., Univ.of Wisconsin-Superior, Superior, WI :332 p.

Chronic Toxicity

Carcinogenicity:	Not Applicable
Irritation:	Data for 100% Diethylene Glycol: Eyes - rabbit | Result: No eye irritation
Corrosivity:	Data for 100% Diethylene Glycol: Skin - rabbit | Result: No skin irritation (OECD Test Guideline 404)
Sensitization:	Data for 100% Diethylene Glycol: Maximisation Test - guinea pig | Result: Did not cause sensitisation on lab
Neurological Effects:	Not Available
Mutagenic Effects:	Not Available
Reproductive Effects:	Not Available

Developmental Effects: Not Available

Target Organ Effects: Data for 100% Diethylene Glycol: Kidneys, Central Nervous System and Liver

Other adverse effects: Not Available

12. ECOLOGICAL MEASURES

Ecotoxicity: Data for 100% 2,2' -oxybisethanol diethylene glycol :
Aquatic Toxicity: > 32,000 ppm/96 hr/mosquito fish/TLm/fresh water
Waterfowl Toxicity: Currently not available
Biological Oxygen Demand (BOD): 6%, 5 days

Persistence/Degradability: Data for 100% 2,2' -oxybisethanol diethylene glycol : Readily Biodegradable

Mobility in Environmental Media: Data for 100% 2,2' -oxybisethanol diethylene glycol : Using a structure estimation method based on molecular connectivity indices(1), the Koc of diethylene glycol can be estimated to be 1(SRC). According to a classification scheme(2), this estimated Koc value suggests that diethylene glycol is expected to have very high mobility in soil. [(1) Meylan WM et al; Environ Sci Technol 26: 1560-67 (1992) (2) Swann RL et al; Res Rev 85: 17-28 (1983)] **PEER REVIEWED**

Bioaccumulation/ Accumulation: Data for 100% 2,2' -oxybisethanol diethylene glycol : An estimated BCF of 3 was calculated in fish for diethylene glycol(SRC), using an estimated log Kow of -1.5(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is low(SRC). [(1) Meylan WM, Howard PH; J Pharm Sci 84: 83-92 (1995) (2) Meylan WM et al; Environ Toxicol Chem 18: 664-72 (1999) (3) Franke C et al; Chemosphere 29: 1501-14 (1994)] **PEER REVIEWED**

13. DISPOSAL MEASURES

Waste Disposal Method: Observe all Federal, State and Local laws concerning health and pollution. Data for 100% 2,2' -oxybisethanol diethylene glycol : Collection of small amounts of substance: Place in a collection container for halogen-free organic solvents and solutions of halogen-free organic substances. Collection vessels must be clearly labelled with a systematic description of their contents and with the hazard symbol and the R and S phrases. Store the vessels in a well-ventilated location. Entrust them to the appropriate authorities for disposal.

Contaminated Packaging: Avoid contact with skin and clothing. Place contaminated packaging in a break proof outer vessel and dispose on in compliance with national and local regulations.

US EPA Waste Number: EPA AEGL: Not listed

14. TRANSPORTATION MEASURES

DOT: Not Regulated

IATA: Not Regulated

ADR (road)/ RID (rail): Not Regulated

IMDG (sea): Not Regulated

General Transport Regulations Data for 100% 2,2' -oxybisethanol diethylene glycol :
Grades of Purity: Regular grade; polyester grade 7.2
Storage Temperature: Ambient
Inert Atmosphere: No requirement
Venting: Open (flame arrester) IMO Pollution Category: D
Ship Type: Data not available
Barge Hull Type: Currently not available

15. REGULATORY MEASURES

This product is a mixture that may contain one or more hazardous chemicals. The hazardous ingredients listed are only those as required by 29 CFR 1910.1200 (OSHA HCS).

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains no chemical or chemicals which are subject to the reporting requirements of the Act and Title 40n of the Code of Federal Regulations, Part 372.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (See 40 CFR 61)

This product contains no chemicals which are subject to the reporting requirements of the Clean Air Act.

State Regulations

California Proposition 65:

This product contains the following Proposition 65 chemicals	None

State Right to Know Act

Chemical Name:	**2,2' -oxybisethanol diethylene glycol**	**Hydrochloric Acid**	**Leave blank or Enter chemical name if applicable**
Massachusetts:	Not Listed	Listed	
New Jersey:	Not Listed	Listed	
Pennsylvania:	Listed	Listed	
New York:	Not Listed	Listed	
Rhode Island:	Listed	Listed	

International Inventories

Chemical Name:	**2,2' -oxybisethanol diethylene glycol**	**Hydrochloric Acid**	**Leave blank or Enter chemical name if applicable**
TSCAL:	Listed	Listed	
DSL:	Listed	Listed	
NDSL:	Not Listed	Not Listed	
EINECS:	Listed	Listed	
CHINA:	Listed	Listed	
KECL:	Listed	Listed	
JAPAN:	Listed	Listed	
AICS:	Listed	Listed	

EU Regulations

Annex I Index#:	Data for 100% 2,2'-oxydiethanol: 603-140-00-6
Classification:	Annex I Index#: 603-140-00-6 Substance Name in Annex 1 : 2,2' -oxybisethanol diethylene glycol Classification: Acute Tox. 4
REACH (EU) 1907/2006	The product does not contain any substances included in candidate list of Substances of very high concern.
Hazard Statements:	P264: Wash skin thoroughly after handling. P270: Do not eat, drink or smoke when using this product.
Precautionary Statements:	H302: Harmful if swallowed.
Symbols and Indications of Danger:	GHS07: Warning (Refer to section 2)
Specific Concentration Limits:	2,2' -oxybisethanol diethylene glycol: Not Available, Hydrochloric Acid: Skin Corr. 1B; H314: C ≥ 25 % | Skin Irrit. 2; H315: 10 % ≤ C < 25 % | Eye Irrit. 2; H319: 10 % ≤ C < 25 % | STOT SE 3; H335: C ≥ 10 %
Export and Import	This substance is not listed in the Annex I of Regulation (EC) No 689/2008.
European Priority List	This substance is not listed in a priority list (as foreseen under Council Regulation (EEC) No 793/93 on the evaluation and control of the risks of existing substances.).

16. OTHER INFORMATION

The above information is believed to be accurate, complete and current but does not purport to be all inclusive and shall be used as a guide. SeraCare Life Sciences makes no representation or warranties with respect to the product described herein, including but not limited to any implied warranties or merchantability or fitness for a particular use. SeraCare assumes no liability or responsibility and authorizes no other person to assume any additional liability or responsibility as a result of the use of this product or the information contained in the Safety Data Sheet.

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