



Safety Data Sheet

Revision Date: 6/16/2015

SDS # SDS-10266-02

Contrast Blue Solution

1. PRODUCT AND COMPANY IDENTIFICATION

Product Description:

Contrast Blue Solution

Product Code

71-00-06

Hazardous Reagent

Contrast BLUE 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*

2. HAZARD IDENTIFICATION

Hazard Type

Health

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

GHS Classification

Serious Eye Damage (Category 1), H318

Hazard Statements:

H318: Causes serious eye damage.

Precautionary Statements:

P280: Wear protective gloves/protective clothing/eye protection/face protection.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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Symbols and Indications of Danger:

GHS05 Danger



Principle Route of Exposure Ingestion, Inhalation and Skin contact.

Acute Effects: Eye: May cause redness and irritation

Acute Effects: Skin: Dry skin.

Acute Effects: Inhalation: Data for 100% Glycerol: Evaporation at 20°C is negligible; a nuisance-causing concentration of airborne particles can, however, be reached quickly on spraying.

Acute Effects: Ingestion: Diarrhoea.

Chronic Effects: Not Available

Additional Information Not Available

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CHEMICAL</u>	<u>% Weight</u>	<u>CAS #:</u>
Contrast Blue Solution	GLYCEROL	10%	56-81-5
	Aluminium Sulfate	5%	17927-65-0

GHS Classification Serious Eye Damage (Category 1), H318

4. FIRST AID MEASURES

General Advice	Wash contaminated clothing before reuse. Consult a physician if irritation persists.
Oral Exposure	Rinse mouth. Refer for medical attention.
Inhalation Exposure	Remove subject to fresh air. Seek medical attention if necessary.
Skin Exposure	Rinse with copious amounts of water
Eye Exposure	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.

5. FIRE FIGHTING MEASURES

Extinguishing media	Water spray. Alcohol-resistant foam. Dry powder. Carbon dioxide
Unusual Fire and Explosive Hazards	Data for 100% Glycerol: In case of fire: keep drums, etc., cool by spraying with water. Data for 100% Aluminium Sulfate: Ambient fire may liberate hazardous vapours or decomposition products. Sulphuric oxides Metal oxide fume Wear self-contained breathing apparatus.
Flash Point	Data for 100% Glycerol: 176°C c.c.
Autoignition Temperature	Data for 100% Glycerol: 393°C

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Flammability Statement Combustible. Gives off irritating or toxic fumes (or gases) in a fire.

Specific hazards arising from the chemical Upon evaporation of water, glycerol may emit toxic fumes under fire conditions. In the event of fire and/or explosion do not breathe fumes.

Protective equipment and precautions for firefighters Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Avoid contact with skin and clothing.

Environmental Precautions Not Applicable

Method of Containment Collect leaking liquid in covered containers. Absorb remaining liquid in sand or inert absorbent and remove to safe place.

Methods of Clean-up Clean-up with copious amounts of water.

Other Information Not Applicable

7. HANDLING AND STORAGE

Handling: Wear appropriate PPE.

Storage: Store at 2-8°C. refrigerated. Separated from strong oxidants.

8. EXPOSURE CONTROL

Respiratory Protection Ventilation.

Eye Protection Safety goggles.

Skin Protection Protective gloves and clothing required

Ingestion Do not eat, drink, or smoke during work.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Reddish-purple colored solution.

Physical State Liquid

Odor Not Applicable

Odor Threshold Not Applicable

pH Not Applicable

Boiling Point Data for 100% Glycerol: 290°C

Evaporation Rate Not Applicable

Vapor Density Data for 100% Glycerol: 3.2

Vapor Pressure Data for 100% Glycerol: 0.01

Relative Density Data for 100% Glycerol: 1.26

Auto-Ignition Temperature Data for 100% Glycerol: 393°C

Water Solubility Dilutable

Flammability Data for 100% Glycerol: 393°C

Flash Point Data for 100% Glycerol: 176°C c.c.

Viscosity Viscous

Oxidizing Properties Not Applicable

Explosive Properties Data for 100% Glycerol: 2.6 - 11.3

Additional Parameters Not Applicable

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal condition
Conditions to avoid	Data for 100% Glycerol: NO open flames. Data for 100% Aluminium Sulfate Hydrate: The substance can react dangerously with strong oxidizing agents.
Incompatibility Materials to Avoid	Strong oxidizing agents and strong bases
Hazardous Decomposition Products	Carbon Monoxide, Carbon Dioxide, Sulphur Oxides, Aluminium Oxide
Hazardous Polymerization	Not Available
Possibility of hazardous reactions	Data for 100% Glycerol: Reacts with strong oxidants causing fire and explosion hazard.

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	Data for 100% Aluminium Sulfate: LD50 oral rat Value: > 9000 mg/kg Reference: Pharmacology and Toxicology Vol. 60, Pg. 280, 1987. Data for 100% Glycerol: LD50 oral rat: 12600 mg/kg Reference: Federation Proceedings, Federation of American Societies for Experimental Biology. Vol. 4, Pg. 142, 1945.
LD50 Dermal	Data for 100% Glycerol: LD50 dermal rat/rabbit: > 10000 mg/kg Species: Rabbit Reference: BIOFAX Industrial Bio-Test Laboratories, Inc., Data Sheets. Vol. 9-4/1970,
LC50 Inhalation	Not Available
<u>Chronic Toxicity</u>	
Carcinogenicity	Not Available
Irritation	Yes - May Occur
Corrosivity	Data for 100% Aluminium Sulfate: Serious eye damage, Category 1; H318
Sensitization	Not Available
Neurological Effects	Not Available
Mutagenic Effects	Not Available
Reproductive Effects	Not Available
Developmental Effects	Not Available
Target Organ Effects	Oral, Skin, Respiratory Tract, Gastrointestinal Tract.
Other adverse effects	Not Available

12. ECOLOGICAL MEASURES

Ecotoxicity	Data for 100% Aluminium Sulfate: LC50 Fish (96 hours) Minimum: 0,958 mg/l Maximum: 36,1 mg/l Median: 2,99 mg/l Study number: 6 Reference for median: Roy, R.L., and P.G.C. Campbell 1997. Decreased Toxicity of A1 to Juvenile Atlantic Salmon (Salmo salar) in Acidic Soft Water Containing Natural Organic Matter: A Test of the Free-Ion Model. Environ.Toxicol.Chem. 16(9):1962-1969; Mayer, F.L.Jr., and M.R. Ellersieck 1986. Manual of Acute Toxicity: Interpretation and Data Base for 410 Chemicals and 66 Species of Freshwater Animals. Resour.Publ.No.160, U.S.Dep.Interior, Fish Wildl.Serv., Washington, DC :505 p. (USGS Data File)
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LC50 Crustaceans (48 hours) Minimum: 23,6 mg/l Maximum: 38,2 mg/l Median: 38,2 mg/l

Study number: 6 Reference for median: Kimball, G. 1978. The Effects of Lesser Known Metals and One Organic to Fathead Minnows (*Pimephales promelas*) and *Daphnia magna*. Manuscr., Dep.of Entomol., Fish.and Wildl., Univ.of Minnesota, Minneapolis, MN :88 p.

Persistence/Degradability Data for 100% Glycerol: Readily biodegradable in aquatic environment

Mobility in Environmental Media Not Available

Bioaccumulation/Accumulation Not expected

13. DISPOSAL MEASURES

Waste Disposal Method: Observe all Federal, State and Local laws concerning health and pollution.

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: Not Available

14. TRANSPORTATION MEASURES

DOT: Not Available

IATA: Not Available

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

IMDG (sea): Not Available

General Transport Regulations 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 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 chemical or 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 Listed

State Right to Know Act

Chemical Name	GLYCEROL	Aluminium Sulfate
Massachusetts	Listed	
New Jersey	Listed	Not Listed
Pennsylvania	Listed	Not Listed
New York	Not Listed	Not Listed
Rhode Island	Not Listed	Not Listed

International Inventories

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Chemical Name	GLYCEROL	Aluminium Sulfate
TSCA	Listed	Not Listed
DSL	Listed	Not Listed
NDSL	Not Listed	Not Listed
EINECS	Listed	Listed
CHINA	Listed	Listed
KECL	Listed	Listed
JAPAN:	Listed	Listed
AICS	Listed	Not Listed

EU Regulations

Annex I Index#	Not Applicable
Classification	Serious Eye Damage (Category 1), H318
Hazard Statements	H318: Causes serious eye damage.
Precautionary Statements	P280: Wear protective gloves/protective clothing/eye protection/face protection. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Symbols and Indications of Danger	GHS05 Danger
Specific Concentration Limits	Not Applicable

16. OTHER INFORMATION

The above information is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. KPL shall not be held liable for any damage resulting from handling or from contact with the above product. Users should make their own investigations to determine the suitability of the information for their particular purposes. This material is sold for research purposes and is intended as laboratory reagents only. It is not intended for food, drug, household, agricultural or cosmetic use. Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals.