

Material Safety Data Sheet

Solulink Inc.
9853 Pacific Heights Blvd, Ste H.
San Diego, CA 92121

Tel: 858.625.0670
Fax: 858.625.0770
Prepared: 07/09/08

Product Name/Description: Bead Blocking Solution

I. Product and Company Description

SoluLinK Inc.
9853 Pacific Heights Blvd, Ste H.
San Diego, CA 92121

For Product Information/Emergency Phone Number:

Emergency Telephone ChemTrec:
1-800-424-9300 (North America)
+1-703-527-3887(International)

SoluLink-858.625.0670 (For product use see product data sheet insert)

Chemical Name or Synonym:

Bead Blocking Solution, Casein protein blocking solution

II. Chemical Composition

Bead Blocking Solution consists of a semi-translucent solution containing 5 mg/mL Hammarsten-grade casein proteins dissolved in 25 mM Tris, 150 mM NaCl, pH 7.4 containing Kathon® CG/IP anti-microbial agent and 0.05% anti-foam A.

Ingredient Name	CAS Number	%	EC number	Classification
Casein protein	9000-71-9	0.5%	Not available	Not available
Tris (tris(hydroxymethyl) aminomethane	77-86-1	0.3%	201-064-4	Xi, Risk- R36,R37,R38, Safety:S2,S24,S25,S26
Sodium chloride	7647-14-5	0.87%	231-598-3	Xi, R 36/37/38
Kathon CG/IP containing active ingredients 2-methyl-4- isothiazolin-3-one and 5-chloro-2-methyl- 4-isothiazolin-3-one	2682-20-4 26172-55-4	0.06%	Not available	Xn C, Xi, Risk-R22, R34, R43 T C N, Risk: R:23/24/25-34-43-50- 53
Anti-foam A	None available	0.05%	Not available	Not available
Water	07732-18-5	98.28	N/A	Not controlled

III. Hazards Identification

Emergency Overview and Health Hazards: While this material is not considered hazardous by the OSHA Hazard communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of the product..

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Physical Hazards: None of the ingredients in this product are considered health hazards at the recommended use levels. Kathon CG/ICP preservative presents no toxicological problems or health hazards at recommended use levels.

HMIS Rating (Scale 0-4): Health = 0 Fire = 0 Reactivity = 0

A. Emergency Overview:

Physical Appearance: Semi-translucent milky liquid

B. Potential Health Effects:

For Kathon CG/IP active ingredients: 2-methyl-4-isothiazolin-3-one
and 5-chloro-2-methyl-4-isothiazolin-3-one

Inhalation Short Term: no information on significant adverse effects

Long Term: no information on significant adverse effects

Skin Short Term: no information on significant adverse effects

Long Term: no information on significant adverse effects

Eye Short Term: no information on significant adverse effects

Long Term: no information on significant adverse effects

Ingestion Short Term: no information on significant adverse effects

Long Term: no information on significant adverse effects

IV. First Aid Measures

First Aid Measures for Accidental:

Eye Exposure:

In case of contact with eyes, immediately flush eyes with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating eye lids.

Skin Exposure:

In case of skin contact, wash affected areas with soap and water and flush the area with copious amounts of water. Remove contaminated clothing.

Inhalation:

In inhaled, move to fresh air. If not breathing, administer artificial respiration. If breathing is difficult, give oxygen or artificial respiration by qualified personnel.

Ingestion:

If swallowed, rinse mouth out with water provided person is conscious. Never give fluids or induce vomiting if the victim is unconscious or having convulsions.

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V. Fire Fighting Measures

Fire Hazard Data:

Fire: materials contained in this product are not considered to be a fire hazard.

Autoignition: no data available

Flash Point: no data available

Flammability Limits (vol/vol%): not applicable **Lower:** **Upper:** not applicable

Extinguishing Media: Use extinguishing media appropriate for surrounding fire

Special Fire Fighting Procedures: Use extinguishing media appropriate for surrounding fire such as water spray, carbon dioxide, dry powder. Wear full protective clothing and NIOSH-approved self-contained breathing apparatus. Avoid inhalation of material or combustion by-products.

Unusual Fire and Explosion Hazards: None

VI. Accidental Release Measures

Cleanup and Disposal of Spill:

Use lab personal protective equipment such as gloves, lab coat, goggles and self-contained breathing apparatus. Wipe spills with absorbent wipes and discard product, residue, disposable container or liner in full compliance with national or international regulations. Ventilate area and wash spill site after material pickup is complete.

VII. Handling and Storage

Handling/Storage:

Store material at refrigerated temperatures (2-8°C). Store and handle in accordance with all current regulations and standards. See original container for storage recommendations. Keep separated from incompatible substance

VIII. Exposure Controls / Personal Protection

Exposure Limits

2-METHYL-4-ISOTHIAZOLIN-3-ONE (2682-20-4)

Germany:

0.2 mg/m³ MAK (mixture in ratio 1:3 with CAS #26172-55-4, inhalable fraction)

0.4 mg/m³ Peak (mixture in ratio 1:3 with CAS #26172-55-4, inhalable fraction)

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5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE (26172-55-4)

Germany:

0.2 mg/m³ MAK (mixture in ratio 3:1 with CAS #2682-20-4, inhalable fraction)

0.4 mg/m³ Peak (mixture in ratio 3:1 with CAS #2682-20-4, inhalable fraction)

Ventilation

Provide adequate ventilation. Ensure compliance with applicable exposure limits.

Engineering Controls:

Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the MSDS. General room ventilation is satisfactory under anticipated use conditions.

Respiratory Protection:

Not required under anticipated use conditions.

Eye / Face Protection:

Wear appropriate safety glasses with side shields or chemical goggles as described by OSHA's eye and face protection regulations in 29CFR 1910.133 or European Standard EN166.

Skin Protection:

Wear chemical resistant gloves (such as latex or neoprene) and protective clothing to prevent skin contact.

IX. Physical and Chemical Properties

Component: Bead Blocking Solution

Physical Appearance: Translucent milky liquid

Percent Purity: 0.05% casein

Boiling Point: Not available

Melting Point: Not available

Specific gravity: Not available

Freezing Point: Not Available

Vapor pressure: Not available

Vapor density: Not available

Solubility: aqueous

Evaporation rate: Not available

pH: 7.2-7.6

X. Stability and Reactivity

Chemical Stability:

Stable.

Conditions to Avoid:

Temperatures <0°C or > 25°C

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Materials / Chemicals to Be Avoided:

Strong oxidizing agents

Hazardous Decomposition Products:

Carbon monoxide, carbon dioxide

Hazardous Polymerization:

Will not polymerize

XI. Toxicological Information

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

2-METHYL-4-ISOTHIAZOLIN-3-ONE (2682-20-4)

Oral: LD50 Rat: 53 mg/kg

5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE (26172-55-4)

Inhalation: LC50 Rat: 1.23 mg/L/4H; Oral LD50 Rat: 481 mg/kg; Dermal LD50 Rat: >1008 mg/kg

RTECS Acute Toxicity (selected)

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

Acute Toxicity Level

2-METHYL-4-ISOTHIAZOLIN-3-ONE (2682-20-4)

Toxic: Ingestion.

5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE (26172-55-4)

Toxic: Ingestion.

Irritation/Corrosivity

No information on significant adverse effects.

RTECS Irritation

XII. Ecological Information

Component Analysis - Aquatic Toxicity

5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE (26172-55-4) Fish: 96 Hr LC50 Oncorhynchus mykiss: 1.6 mg/L [semi-static]

Algae: 120 Hr EC50 Anabaena flos-aquae: 0.31 mg/L; 72 Hr EC50 Pseudokirchneriella subcapitata: 0.11 - 0.16 mg/L [static]; 96 Hr EC50 Pseudokirchneriella subcapitata: 0.03 - 0.13 mg/L [static]

Invertebrate: 48 Hr EC50 Daphnia magna: 4.71 mg/L; 48 Hr EC50 Daphnia magna: 0.12 - 0.3 mg/L [Flow through]; 48 Hr EC50 Daphnia magna: 0.71 - 0.99 mg/L [Static]

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XIII. Disposal Considerations

Waste Disposal Method:

Discard any product, residue, disposable container or liner in full compliance with national and international regulations.

Container Handling and Disposal:

Dispose of container and unused contents in accordance with national regulations.

XIV. Transportation Information

Shipping Name: ADR/RID/IMO/ICAO/US DOT/IATA

DOT

Proper Shipping Name: Not regulated

UN #: Not regulated

Hazard Class: Not regulated

Packaging Group: Not regulated

Label Statement: None

XV. Regulatory Information

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

2-METHYL-4-ISOTHIAZOLIN-3-ONE (2682-20-4) TSCA 12b:

Other Regulations:

U.S. State Regulations

None of this product's components are listed on the state lists from CA, MA, MN, NJ, PA, or RI.

California Proposition 65

Not regulated under California Proposition 65

Canadian Regulations

WHMIS Classification

Not a Controlled Product under Canada's Workplace Hazardous Material Information System.

European Regulations

This preparation has been classified for the European Union according to Annex VI Directives 67/548/EEC and 99/45/EC.

Germany Water Classification

2-METHYL-4-ISOTHIAZOLIN-3-ONE (2682-20-4)

Number 2959, hazard class 3 - severe hazard to waters

5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE (26172-55-4)

Number 1097, hazard class 3 - severe hazard to waters

EU Marking and Labelling

This material is not classified.

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Japanese Regulations

Japan Designated Chemical Substances (PRTR Law)

No components of this material are subject to reporting requirements as specified by the "Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management" nor are they included in the "Pollutant Release and Transfer Register (PRTR)" of designated chemicals.

Japan Poisonous and Deleterious Substances

No components of this material are specified as poisonous or deleterious substances, as regulated by Japan under the Poisonous and Deleterious Substances Control Law.

XVI. Other Information

Risk and Safety Phrases:

Xi: Irritant
T: Toxic

Risk

R22 Harmful if swallowed.
R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
R34 Causes burns.
R43 May cause sensitization by skin contact.
R50 Very toxic to aquatic organisms.
R53 May cause long-term adverse effects in the aquatic environment.

Safety

S23 Keep out of reach of children
S24 Avoid skin contact.
S25 Avoid contact with eyes
S26 In case of contact with eyes, rinse immediately with water and seek medical advice

Key Legend Information:

N/A – Not Applicable
ND – Not Determined
ACGIH – American Conference of Governmental Industrial Hygienists
OSHA – Occupational Safety and Health Administration
TLV – Threshold Limit Value
PEL – Permissible Exposure Limit
TWA – Time Weighted Average
STEL – Short Term Exposure Limit
NTP – National Toxicology Program
IARC – International Agency for Research on Cancer

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