

Material Safety Data Sheet

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

Tel: 858.625.0670
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Prepared: 07/13/09

Product Name/Description: ChromaLink Digoxigenin (Sulfo-NHS)

I. Product and Company Description

Solulink Biosciences
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:

ChromaLink Dig

II. Chemical Composition

ChromaLink Digoxigenin (Sulfo-NHS) is supplied as a dried nearly colorless residue

Chemical name: Sodium 1-(4-[[5-(3-{2-[2-(3-Digoxigeninyl-carbonylamino-propoxy)-ethoxy]-ethoxy}-propylcarbonyl)-pyridin-2-yl]-hydrazonomethyl]-benzoyloxy)-2,5-dioxo-pyrrolidine-3-sulfonate)

Molecular formula: $C_{52}H_{67}N_6NaO_{17}S$;
Molecular Weight: 1103.17

Chemical composition is similar and closely related to CAS # 129273-26-3

Ingredient Name	CAS Number	%	EC number	Classification
ChromaLink Digoxigenin (Sulfo-NHS)	Not listed	>85%	Not available	T+, R26,R27, R28-33 S:28-36/37-45

III. Hazards Identification

Emergency Overview and Health Hazards: Highly toxic (USA), Very toxic (EU)

NFPA Rating (Scale 0-4): Health = 2 Fire = 0 Reactivity = 0
HMIS Rating (Scale 0-4): Health = 2 Fire = 0 Reactivity = 0

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For additional information on toxicity, please refer to section XI.

A. Emergency Overview:

Information Pertaining To Particular Dangers for Man And Environment:

Physical Appearance: Nearly colorless dried residue

B. Potential Health Effects:

Acute Eye:

Direct contact may cause irritation with redness.

Acute Skin:

Toxic in contact with skin.

Acute Inhalation:

Toxic: danger of serious damage to health by prolonged exposure through inhalation.

Acute ingestion:

Toxic if swallowed.

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. SEEK MEDICAL ATTENTION IMMEDIATELY.

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 and SEEK MEDICAL ATTENTION IMMEDIATELY.

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. SEEK MEDICAL ATTENTION IMMEDIATELY.

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. SEEK MEDICAL ATTENTION IMMEDIATELY.

V. Fire Fighting Measures

Fire Hazard Data:

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

Autoignition: not applicable

Flash Point: not applicable

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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 known

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 any product, residue, disposable container or liner in full compliance with national or international regulations. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

VII. Handling and Storage

Handling/Storage:

Do not breathe dust. Do not get into eyes, skin or clothing. Avoid prolonged or repeated exposure. Handle wearing gloves.

Store material dry at room temperature and keep container tightly closed.

VIII. Exposure Controls / Personal Protection

Exposure Guidelines:

Ingredient Name	ACGIH	NIOSH	OSHA-PELs
ChromaLink Digoxigenin (Sulfo-NHS)	No occupational limits established	No occupational limits established	No occupational limits established

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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: ChromaLink Digoxigenin (Sulfo-NHS)

Physical Appearance: Nearly colorless residue

Percent Purity: >85%

Boiling Point: No information available

Melting Point: No information available

Specific gravity: No information available

Freezing Point: No information available

Vapor pressure: No information available

Vapor density: No information available

Solubility: aqueous

Evaporation rate: No information available

X. Stability and Reactivity

Chemical Stability:

Stable, may be slightly hygroscopic.

Conditions to Avoid:

Temperatures > 104°C

Materials / Chemicals to Be Avoided:

Strong oxidizing agents

Hazardous Decomposition Products:

Carbon monoxide, carbon dioxide

Hazardous Polymerization:

Will not occur.

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XI. Toxicological Information

Acute Oral Toxicity: 0.422 mg/kg (dog) data referred to Digoxigenin LD50
0.20 mg/kg (cat) data referred to Digoxigenin LD50
Acute Inhalation Toxicity: May be fatal if inhaled.

Carcinogenicity:

NTP: Unknown
IARC: Unknown
OSHA: Unknown

XII. Ecological Information

Ecotoxicological Information:

No data available on the product itself
Aquatic toxicity: Not applicable

XIII. Disposal Considerations

Waste Disposal Method:

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

Container Handling and Disposal:

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

XIV. Transportation Information

Is product hazardous to ship? Yes

DOT

Proper Shipping Name: Toxic solid, organic, n.o.s (Sodium 1-(4-[[5-(3-{2-[2-(3-Digoxigeninyl-carbonylamino-propoxy)-ethoxy]-ethoxy}-propylcarbamoyl)-pyridin-2-yl]-hydrazonomethyl]-benzoyloxy)-2,5-dioxo-pyrrolidine-3-sulfonate)

UN #: 2811
Hazard Class: 6.1
Packaging Group: III
Subsidiary risk: Not applicable

IATA

Proper Shipping Name: Toxic solids, organic, n.o.s (Sodium 1-(4-[[5-(3-{2-[2-(3-Digoxigeninyl-carbonylamino-propoxy)-ethoxy]-ethoxy}-propylcarbamoyl)-pyridin-2-yl]-hydrazonomethyl]-benzoyloxy)-2,5-dioxo-pyrrolidine-3-sulfonate)

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XV. Regulatory Information

Indication of danger: Very toxic R: 26/27/28/33
Risk Assessment; Very toxic by inhalation, in contact with skin and if swallowed.
Danger of cumulative effects.
S:28-36/37-45
Safety Statement: After contact with skin, wash immediately with plenty of polyethylene glycol. Wear suitable protective clothing and gloves. In case of accident or if you feel unwell, seek immediate medical advice (show the label where possible).

U.S. Federal Regulations:

U.S. CERCLA/SARA/TSCA Regulatory Information: Not Listed

Other Regulations:

U.S. State None
European/International Regulations

EC Classification: T+ Very toxic
EC Risk and Safety Phrases: R26 Very toxic by inhalation
R27 Very toxic in contact with skin
R28 Very toxic if swallowed
R33 Danger of cumulative effects

Risk Phrases: None
Safety Phrases: S28 After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of ... (to be specified by the manufacturer)
S29 Do not empty into drains; dispose of this material and its container in a safe way

XVI. Other Information

Key Legend Information:

N/A – Not Applicable
ND – Not Determined
ACGIH – American Conference of Governmental Industrial Hygienists

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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

The information contained herein is based on the data available to us and is believed to be correct. However Solulink Incorporated makes no warranty, expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof be obtained from the use thereof.