



The Power to Question

SAFETY DATA SHEET

Santa Cruz Biotechnology, Inc.

Revision date 30-Mar-2017

Version 1.6

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product Identifier

| | |
|------------------------|------------------------------|
| Product Name | Cross-linked Allophycocyanin |
| Product Code | SC-359907 |
| Pure substance/mixture | mixture |

1.2. Relevant identified uses of the substance or mixture and uses advised against

For research use only. Not intended for diagnostic or therapeutic use.

1.3. Details of the supplier of the safety data sheet

| | |
|---|--|
| Santa Cruz Biotechnology, Inc. 10410 Finnell Street Dallas, TX 75220 831.457.3800 800.457.3801 scbt@scbt.com | Santa Cruz Biotechnology, Inc. Bergheimer Str. 89-2 69115 Heidelberg, Germany +49.6221.4503 0 +1.800.457.3801 europe@scbt.com |
|---|--|

1.4. Emergency telephone number

Chemtrec
1.800.424.9300 (Within USA)
+1.703.527.3887 (Outside USA)

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]
Chronic aquatic toxicity Category 2 - (H411)

2.2. Label Elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

| | |
|--------------------|----------------|
| Signal word | Not classified |
| Symbols/Pictograms | Not classified |



Hazard statements

H411 - Toxic to aquatic life with long lasting effects
Not classified

Precautionary Statements - EU (§28, 1272/2008)

P273 - Avoid release to the environment
P501 - Dispose of contents/ container to an approved waste disposal plant
P391 - Collect spillage

2.3. Other Hazards

| | |
|-----------------|----------------|
| General Hazards | Not applicable |
|-----------------|----------------|



Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Molecular Weight No information available
Formula No information available

3.2 mixtures

| Chemical Name | EC No | CAS No | Weight % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|--------------------------------------|---------|------------|----------|---|
| Ammonium Sulfate | Present | 7783-20-2 | 60 | Acute Tox. 5 (H303) Aquatic Chronic 3 (H412) |
| Water | Present | 7732-18-5 | 30 | - |
| Sodium phosphate monobasic dihydrate | - | 13472-35-0 | 5 | - |
| Allophycocyanin | - | - | 5 | - |

Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice If symptoms persist, call a physician. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing.

Inhalation Remove to fresh air. Call a physician. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Artificial respiration and/or oxygen may be necessary. Immediate medical attention is not required. Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician.

Skin Contact Consult a physician if necessary. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Immediate medical attention is not required.

Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Ingestion Rinse mouth. Drink plenty of water. If symptoms persist, call a physician. Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.

Self-protection of the first aider Use personal protective equipment as required.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical No information available

Hazardous combustion products No information available.

5.3. Advice for firefighters



Special protective equipment for fire-fighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.
Methods for cleaning up Cover liquid spill with sand, earth or other non-combustible absorbent material. Cover powder spill with plastic sheet or tarp to minimize spreading. Pick up and transfer to properly labeled containers. Soak up with inert absorbent material. Dam up.

6.4. Reference to other sections

See Section 12: ECOLOGICAL INFORMATION.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Use with local exhaust ventilation.
General Hygiene Considerations When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
Derived No Effect Level (DNEL) No information available
Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering Controls Showers
Eyewash stations
Ventilation systems
Eye/face protection Tight sealing safety goggles. Face protection shield.
Skin and Body Protection Suitable protective clothing. Apron. Gloves made of plastic or rubber.



| | |
|---------------------------------|---|
| Respiratory protection | If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations. |
| Environmental exposure controls | Do not allow into any sewer, on the ground or into any body of water. |

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|----------------|--------------------------|
| Physical State | liquid |
| Appearance | Solution |
| Odor | No information available |

| <u>Property</u> | <u>Values</u> |
|------------------------------|--------------------------|
| pH | No information available |
| Melting point/freezing point | No information available |
| Boiling point | No information available |
| Flash point | No information available |
| Density | No information available |
| Evaporation rate | No information available |
| Upper flammability limits | No information available |
| Lower flammability limit | No information available |
| Vapor pressure | No information available |
| Vapor density | No information available |
| Specific gravity | No information available |
| Water solubility | No information available |
| Solubility in other solvents | No information available |
| Partition coefficient | No information available |
| Autoignition temperature | No information available |
| Decomposition temperature | No information available |
| Kinematic viscosity | No information available |
| Explosive properties | No information available |
| Oxidizing properties | No information available |

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

| | |
|------------|----------------|
| Reactivity | Not applicable |
|------------|----------------|

10.2. Chemical stability

| | |
|----------------------------------|--|
| Stability | Stable under recommended storage conditions. |
| Sensitivity to Mechanical Impact | No information available. |
| Sensitivity to Static Discharge | No information available. |

10.3. Possibility of hazardous reactions

| | |
|------------------------------------|-------------------------------|
| Hazardous polymerization | No information available. |
| Possibility of Hazardous Reactions | None under normal processing. |

10.4. Conditions to avoid

| | |
|---------------------|--|
| Conditions to avoid | Extremes of temperature and direct sunlight. |
|---------------------|--|

10.5. Incompatible materials

| | |
|------------------------|--------------------------|
| Incompatible materials | Strong oxidizing agents. |
|------------------------|--------------------------|

10.6. Hazardous decomposition products

| | |
|----------------------------------|---|
| Hazardous Decomposition Products | None known based on information supplied. |
|----------------------------------|---|

Section 11: TOXICOLOGICAL INFORMATION



11.1. Information on toxicological effects

Acute toxicity

Product Information Product does not present an acute toxicity hazard based on known or supplied information.
 Unknown acute toxicity 10% of the mixture consists of ingredient(s) of unknown toxicity.

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 4,733.00 mg/kg

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|------------------|----------------------|-------------|-----------------|
| Ammonium Sulfate | = 2840 mg/kg (Rat) | | |
| Water | > 90 mL/kg (Rat) | | |

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity May cause long lasting harmful effects to aquatic life.
 Unknown aquatic toxicity 10% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

| Chemical Name | Algae/aquatic plants | Fish | Crustacea |
|------------------|----------------------|--|--|
| Ammonium Sulfate | | 250: 96 h Brachydanio rerio mg/L LC50 480: 96 h Brachydanio rerio mg/L LC50 flow-through 420: 96 h Brachydanio rerio mg/L LC50 semi-static 5.2 - 8.2: 96 h Oncorhynchus mykiss mg/L LC50 static 32.2 - 41.9: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 18: 96 h Cyprinus carpio mg/L LC50 100: 96 h Pimephales promelas mg/L LC50 123 - 128: 96 h Poecilia reticulata mg/L LC50 semi-static 126: 96 h Poecilia reticulata mg/L LC50 460 - 1000: 96 h Leuciscus idus mg/L LC50 static | 14: 48 h Daphnia magna mg/L LC50 423: 24 h Daphnia magna mg/L EC50 |

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation No information available.

| Chemical Name | Partition coefficient |
|------------------|-----------------------|
| Ammonium Sulfate | -5.1 |

12.4. Mobility in soil

Mobility No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

12.6. Other adverse effects

Other adverse effects No information available

Section 13: DISPOSAL CONSIDERATIONS

**13.1. Waste treatment methods**

Waste from residues/unused products Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container.

Other Information Waste codes should be assigned by the user based on the application for which the product was used.

Section 14: TRANSPORT INFORMATION

| | <u>RID / ADR</u> Not regulated | <u>IMDG</u> Not regulated | <u>ICAO (air) / IATA</u> Not regulated |
|----------------------------------|-----------------------------------|------------------------------|---|
| 14.1 UN/ID no | - | - | - |
| 14.2 Proper shipping name | - | - | - |
| 14.3 Hazard Class | - | - | - |
| Subsidiary hazard class / Labels | - | - | - |
| 14.4 Packing Group | - | - | - |
| 14.5 Environmental Hazard | - | - | - |
| 14.6 Special Provisions | - | - | - |

Section 15: REGULATORY INFORMATION**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National Regulations****European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

International Inventories

All of the components in the product are on the following Inventory lists

No information available

| Chemical Name | TSCA | DSL | NDSL | EINECS | ELINCS | ENCS | IECSC | KECL | PICCS | AICS |
|--------------------------------------|------|-----|------|--------|--------|------|-------|------|-------|------|
| Ammonium Sulfate | X | X | - | X | - | X | X | X | X | X |
| Water | X | X | - | X | - | - | X | X | X | X |
| Sodium phosphate monobasic dihydrate | - | - | - | - | - | - | X | - | X | X |

X - Listed

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

15.2. Chemical safety assessment

Chemical Safety Report No information available

Section 16: OTHER INFORMATION



Full text of H-Statements referred to under sections 2 and 3

H303 - May be harmful if swallowed

H412 - Harmful to aquatic life with long lasting effects

Revision note

No information available.

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet