



The Power to Question

SAFETY DATA SHEET

Santa Cruz Biotechnology, Inc.

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Version 1.7

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

1.1. Product Identifier

| | |
|------------------------|--|
| Product Name | Human Insulin, Solution |
| Product Code | SC-360248 |
| CAS No | 11061-68-0 |
| Synonyms | Human Insulin, Solution also known as Insulin; human insulin |
| 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]

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 | Not classified |

2.3. Other Hazards

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

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Molecular Weight 5807.57
Formula $C_{257}H_{383}N_{65}O_{77}S_6$

3.2 mixtures

| Chemical name | EC No | CAS No. | Weight-% | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---------------|---------|------------|----------|---|
| Water | Present | 7732-18-5 | 90 | - |
| HEPES | Present | 7365-45-9 | 9 | Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) |
| Insulin | Present | 11061-68-0 | 1 | - |

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

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice Consult a physician if necessary.
Inhalation Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.
Skin Contact Wash skin with soap and water.
Eye contact Wash with plenty of water.
Ingestion Never give anything by mouth to an unconscious person. Clean mouth with water.

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 Ensure adequate ventilation, especially in confined areas.
For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions 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 Pick up and transfer to properly labeled containers.

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 Handle in accordance with good industrial hygiene and safety practice.
 General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place.

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 Wear safety glasses with side shields (or goggles).
 Skin and Body Protection Wear protective gloves and protective clothing.
 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 No information available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State liquid
 Appearance No information available
 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 |
| Liquid 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 1% 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) 22,244.00 mg/kg

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---------------|----------------------|-------------|-----------------|
| Water | > 90 mL/kg (Rat) | | |
| HEPES | > 2000 mg/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.

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation No information available.

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.

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 14.5 Environmental Hazard | - | - | - |
| 14.6 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

Europe (EINECS/ELINCS/NLP)

| Chemical name | TSCA | DSL | NDSL | EINECS | ELINCS | ENCS | IECSC | KECL | PICCS | AICS |
|---------------|------|-----|------|--------|--------|------|-------|------|-------|------|
| Water | X | X | - | X | - | - | X | X | X | X |
| HEPES | X | X | - | X | - | - | X | - | X | X |
| Insulin | - | - | - | 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 | H315 - Causes skin irritation H319 - Causes serious eye irritation |
| 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