



# Human Insulin, Solution: sc-360248

## MATERIAL SAFETY DATA SHEET

The Power to Question

### SECTION 1 - PRODUCT AND COMPANY INFORMATION

Product Name: Human Insulin, Solution  
 Catalog Number: sc-360248  
 Supplier: Santa Cruz Biotechnology, Inc.  
 2145 Delaware Ave.  
 Santa Cruz, California 95060  
 800.457.3801 or 831.457.3800  
 Emergency: ChemWatch  
 Within the US & Canada: 877-715-9305  
 Outside the US & Canada: +800 2436 2255  
 (1-800-CHEMCALL) or call +613 9573 3112

### SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENT

<u>Substance Name</u>	<u>CAS #</u>	<u>SARA 313</u>
INSULIN SOLUTION, HUMAN	None	No
RECOMBINANT SOLUTION CELL CULTURE TESTED		

<u>Ingredient Name</u>	<u>CAS #</u>	<u>%</u>	<u>SARA 313</u>
WATER	7732-18-5	98.349	No
INSULIN, HUMAN RECOMBINANT	11061-68-0	1	No
HEPES SODIUM SALT	75277-39-3	0.651	No

Synonyms: Humuline \* Novolin \* Velosulin

Formula:  $C_{257}H_{383}N_{65}O_{77}S_6$

Molecular Weight: 5807.57

RTECS Number: NM8900250

### SECTION 3 - HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

Caution: Avoid contact and inhalation. Possible sensitizer.

#### HMIS RATING

HEALTH: 2  
 FLAMMABILITY: 0  
 REACTIVITY: 0

#### NFPA RATING

HEALTH: 2  
 FLAMMABILITY: 0  
 REACTIVITY: 0

For additional information on toxicity, please refer to Section 11.

### SECTION 4 - FIRST AID MEASURES

#### ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

#### INHALATION EXPOSURE

If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

#### DERMAL EXPOSURE

In case of contact, immediately wash skin with soap and copious amounts of water.

#### EYE EXPOSURE

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

### SECTION 5 - FIRE FIGHTING MEASURES

#### FLASH POINT

N/A

#### AUTOIGNITION TEMP

N/A

#### FLAMMABILITY

N/A

#### EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

#### FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Hazard(s): Emits toxic fumes under fire conditions.

### SECTION 6 - ACCIDENTAL RELEASE MEASURES

#### METHODS FOR CLEANING UP

Absorb on sand or vermiculite and place in closed containers for disposal.

Ventilate area and wash spill site after material pickup is complete.

### SECTION 7 - HANDLING AND STORAGE

#### HANDLING

User Exposure: Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

#### STORAGE

Suitable: Keep tightly closed.

Store at 2-8°C

#### SPECIAL REQUIREMENTS

Light sensitive.

### SECTION 8 - EXPOSURE CONTROLS / PPE

#### ENGINEERING CONTROLS

Safety shower and eye bath. Mechanical exhaust required.

#### PERSONAL PROTECTIVE EQUIPMENT

Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Respiratory protection is not required. Where protection is desired, use multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges.

Hand: Protective gloves.

Eye: Chemical safety goggles.

#### GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

### SECTION 9 - PHYSICAL/CHEMICAL PROPERTIES

Appearance ..... Liquid  
 pH ..... N/A  
 BP/BP Range ..... N/A  
 MP/MP Range ..... N/A  
 Freezing Point ..... N/A  
 Vapor Pressure ..... N/A  
 Vapor Density ..... N/A  
 Saturated Vapor Conc. .... N/A  
 Bulk Density ..... N/A  
 Odor Threshold ..... N/A  
 Volatile% ..... N/A  
 VOC Content ..... N/A  
 Water Content ..... N/A  
 Solvent Content ..... N/A  
 Evaporation Rate ..... N/A  
 Viscosity ..... N/A  
 Surface Tension ..... N/A  
 Partition Coefficient ..... N/A

continued...

Decomposition Temp. . . . .N/A  
Flash Point . . . . .N/A  
Explosion Limits . . . . .N/A  
Flammability . . . . .N/A  
Autoignition Temp . . . . .N/A  
Refractive Index . . . . .N/A  
Optical Rotation . . . . .N/A  
Miscellaneous Data . . . . .N/A  
Solubility . . . . .N/A  
N/A = not available

### SECTION 10 - STABILITY AND REACTIVITY

#### STABILITY

Stable: Stable.

Materials to Avoid: Strong oxidizing agents.

#### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Nature of decomposition products not known.

#### HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

### SECTION 11 - TOXICOLOGICAL INFORMATION

#### ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.

Skin Absorption: May be harmful if absorbed through the skin.

Eye Contact: May cause eye irritation.

Inhalation: Material may be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.

Ingestion: May be harmful if swallowed.

#### SENSITIZATION

Sensitization: Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

#### SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

#### TOXICITY DATA

Intraperitoneal

Rat

>4 KU/KG

LD50

Subcutaneous

Rat

>4 KU/KG

LD50

Intravenous

Rat

>4 KU/KG

LD50

Intraperitoneal

Mouse

3937 UNITS/KG

LD50

Subcutaneous

Mouse

>4 KU/KG

LD50

Intravenous

Mouse

>4 KU/KG

LD50

### SECTION 12 - ECOLOGICAL INFORMATION

No data available.

### SECTION 13 - DISPOSAL CONSIDERATIONS

#### APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

### SECTION 14 - TRANSPORT INFORMATION

#### DOT

Proper Shipping Name: None

Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

#### IATA

Non-Hazardous for Air Transport: Non-hazardous for air transport.

### SECTION 15 - REGULATORY INFORMATION

#### US CLASSIFICATION AND LABEL TEXT

US Statements: Caution: Avoid contact and inhalation. Possible sensitizer.

#### UNITED STATES REGULATORY INFORMATION

SARA LISTED: No

#### CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

### SECTION 16 - OTHER INFORMATION

*The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.*

03/15/2011