SAFETY DATA SHEET

Santa Cruz Biotechnology, Inc.
Revision date 21-Jun-2016
Version 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name	casein kinase II substrate
Product Code	SC-3046

Recommended use of the chemical and restrictions on use

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

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

Emergency telephone number

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

2. HAZARDS IDENTIFICATION

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.122).

Classification

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Label elements

Signal word	Not classified
Hazard statements	Not classified
Symbols/Pictograms	Not classified
Precautionary Statements - Prevention	Wash hands thoroughly after handling
Precautionary Statements - Response	IF exposed or concerned: Get medical advice/attention

Hazards not otherwise classified (HNOC)

Hazards not otherwise classified (HNOC)	Not applicable

Other Information

Unknown acute toxicity	33.38% of the mixture consists of ingredient(s) of unknown toxicity.

NFPA		
	Health hazards	-
	Flammability	-
	Stability	-
	Physical and chemical properties	-

HMIS		
	Health hazards	-
	Flammability	-
	Physical hazards	-
	Personal protection	-

3. COMPOSITION/INFORMATION ON INGREDIENTS

Molecular Weight	No information available
Formula	No information available

Chemical Name	CAS No	Weight %	Oral LD50	Dermal LD50	Inhalation LC50

Sodium Chloride	7647-14-5	30 - 60	= 3 g/kg (Rat)	> 10 g/kg (Rabbit)	> 42 g/m³ (Rat) 1 h
casein kinase II substrate	-	15 - 40	-	-	-
Tris base	77-86-1	5 - 10	= 5900 mg/kg (Rat)	-	-
Sodium azide	26628-22-8	<0.1	= 27 mg/kg (Rat)	= 20 mg/kg (Rabbit) = 50 mg/kg (Rat)	-

4. FIRST AID MEASURES

First Aid Measures

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

Most important symptoms and effects, both acute and delayed

Symptoms: No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Suitable Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Extinguishing Media: None.

Specific hazards arising from the chemical

Specific hazards arising from the chemical: No information available.
Hazardous combustion products: No information available.

Explosion data

Sensitivity to Mechanical Impact: No information available.
Sensitivity to Static Discharge: No information available.

Protective equipment and precautions for firefighters

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Ensure adequate ventilation, especially in confined areas.

Environmental precautions

Environmental precautions: See Section 12 for additional Ecological Information.

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.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling: Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions: Keep containers tightly closed in a dry, cool and well-ventilated place. Store at -20 °C.
Incompatible materials: None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines: .
Other Information: Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium azide 26628-22-8	Ceiling: 0.29 mg/m^3 NaN3 Ceiling: 0.11 ppm Hydrazoic acid vapor	(vacated) S* (vacated) Ceiling: 0.1 ppm HN3 (vacated) Ceiling: 0.3 mg/m^3 NaN3	Ceiling: 0.1 ppm HN3 Ceiling: 0.3 mg/m^3 NaN3

NIOSH IDLH Immediately Dangerous to Life or Health

Appropriate engineering controls

Engineering Controls: Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: liquid
Appearance: No information available
Odor: No information available

Property	Values
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

10. STABILITY AND REACTIVITY

Reactivity	Not applicable
Chemical stability	Stable under recommended storage conditions.
Possibility of Hazardous Reactions	None under normal processing.
Hazardous polymerization	No information available.
Conditions to avoid	Extremes of temperature and direct sunlight.
Incompatible materials	Strong oxidizing agents.
Hazardous Decomposition Products	None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation	No data available.
Eye contact	No data available.
Skin Contact	No data available.
Ingestion	No data available.

Information on toxicological effects

Symptoms	No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity	No information available.

Numerical measures of toxicity - Product Information

Unknown acute toxicity	33.38% 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)	3415 mg/kg
ATEmix (dermal)	11384 mg/kg
ATEmix (inhalation-vapor)	48 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity	May cause long lasting harmful effects to aquatic life

Chemical Name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea

Sodium Chloride 7647-14-5	-	5560 - 6080: 96 h Lepomis macrochirus mg/L LC50 flow-through 12946: 96 h Lepomis macrochirus mg/L LC50 static 4747 - 7824: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 7050: 96 h Pimephales promelas mg/L LC50 semi-static 6420 - 6700: 96 h Pimephales promelas mg/L LC50 static 6020 - 7070: 96 h Pimephales promelas mg/L LC50 static	-	340.7 - 469.2: 48 h Daphnia magna mg/L EC50 Static 1000: 48 h Daphnia magna mg/L EC50
Sodium azide 26628-22-8	-	0.8: 96 h Oncorhynchus mykiss mg/L LC50 5.46: 96 h Pimephales promelas mg/L LC50 flow-through 0.7: 96 h Lepomis macrochirus mg/L LC50	-	-

33.38% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

Persistence and degradability	No information available.
Bioaccumulation	No information available.
Mobility	No information available.

13. DISPOSAL CONSIDERATIONS

Disposal of wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Do not reuse container.
US EPA Waste Number	P105
California Hazardous Waste Status	This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
Sodium azide 26628-22-8	Ignitable Reactive

14. TRANSPORT INFORMATION

DOT Not regulated

IMDG Not regulated

IATA Not regulated

15. REGULATORY INFORMATION

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
Sodium Chloride	X	X	-	X	-	X	X	X	X	X
Tris base	X	X	-	X	-	X	X	X	X	X

Sodium azide	X	X	-	X	-	X	X	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

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive hazard	No

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

16. OTHER INFORMATION

Revision note No information available

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