

SAFETY DATA SHEET

Santa Cruz Biotechnology, Inc. Revision date 19-Oct-2015 Version 1

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

Product identifier

Product Name Product Code 3-Methylcrotonaldehyde SC-238594

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 considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification

Acute toxicity - Oral Acute toxicity - Inhalation (Vapors) Acute toxicity - Inhalation (Dusts/Mists) Skin corrosion/irritation Serious eye damage/eye irritation Skin sensitization Flammable liquids

Label elements

Signal word Hazard statements

Symbols/Pictograms

Category 4 Category 3 Category 3 Category 1 Sub-category A Category 1 Category 1 Category 3

Danger Harmful if swallowed Toxic if inhaled Causes severe skin burns and eye damage May cause an allergic skin reaction Flammable liquid and vapor





Precautionary Statements - Prevention	Wash face, hands and any exposed skin thoroughly after handling
	Do not eat, drink or smoke when using this product
	Use only outdoors or in a well-ventilated area
	Do not breathe dust/fume/gas/mist/vapors/spray
	Wear protective gloves/protective clothing/eye protection/face
	protection
	Contaminated work clothing should not be allowed out of the
	workplace
	Keep away from heat/sparks/open flames/hot surfaces. — No
	smoking
	Keep container tightly closed
	Ground/bond container and receiving equipment
	Use only non-sparking tools
	Take precautionary measures against static discharge
	Keep cool
Precautionary Statements - Response	Immediately call a POISON CENTER or doctor/physician
	IF IN EYES: Rinse cautiously with water for several minutes.
	Remove contact lenses, if present and easy to do. Continue
	rinsing
	Immediately call a POISON CENTER or doctor/physician
	IF ON SKIN (or hair): Remove/Take off immediately all
	contaminated clothing. Rinse skin with water/shower
	Wash contaminated clothing before reuse
	If skin irritation or rash occurs: Get medical advice/attention
	IF INHALED: Remove victim to fresh air and keep at rest in a
	position comfortable for breathing
	Immediately call a POISON CENTER or doctor/physician
	IF SWALLOWED: Call a POISON CENTER or doctor/physiciar
	you feel unwell
	Rinse mouth
	Do NOT induce vomiting
	In case of fire: Use CO2, dry chemical, or foam for extinction
Precautionary Statements - Storage	Store in a well-ventilated place. Keep container tightly closed
	Store locked up
Precautionary Statements - Disposal	Dispose of contents/container to an approved waste disposal
	plant
Hazards not otherwise classified (HNOC)	
Hazards not otherwise classified (HNOC)	Not applicable
Other Information	
Other hazards	Toxic to aquatic life with long lasting effects.

Other hazards

NFPA	Health hazards	
	Flammability	
	Stability	
	Physical and chemical	
	properties	

Toxic to aquatic life with long lasting effects.

HMIS



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3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS No	107-86-8
Molecular Weight	84.12
Formula	C5H8O

Chemical Name	CAS No	Weight %	Oral LD50	Dermal LD50	Inhalation LC50
3-Methylcrotonaldehyde	107-86-8	>98	= 690 mg/kg (Rat)	= 3400 mg/kg (Rat)	= 3.7 mg/L (Rat)4 h



4. FIRST AID MEASURES

First Aid Measures	
General advice	Immediate medical attention is required. In case of accident or unwellness, seek medical
Eye contact	advice immediately (show directions for use or safety data sheet if possible). 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.
Skin Contact	Wash off immediately with plenty of water.
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
Ingestion	Rinse mouth. Drink plenty of water. If symptoms persist, call a physician. Do NOT induce vomiting.
Self-protection of the first aider	Remove all sources of ignition.
Most important symptoms and Symptoms	effects, both acute and delayed No information available.
Indication of any immediate mo	edical attention and special treatment needed Treat symptomatically.

Suitable Extinguishing Media

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing MediaUse extinguishing measures that are appropriate to local circumstances and the surrounding environment.Unsuitable Extinguishing MediaNone.	Specific bazards arising from t	the chemical
	Unsuitable Extinguishing Media	0
Suitable Extinguishing Media	0 0	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific hazards arising from the chemical

Specific hazards arising from the chemical	No information available.
Hazardous combustion products	Carbon oxides.
Explosion data	
Sensitivity to Mechanical Impact Sensitivity to Static Discharge	No information available. No information available.

Protective equipment and precautions for firefighters

Protective equipment and precautions 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 proceduresPersonal precautionsRemove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas.			
Environmental precautions Environmental precautions	Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. 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. Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

7. HANDLING AND STORAGE

Precautions for safe handling Advice on safe handling	Ensure adequate ventilation, especially in confined areas. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded.
Conditions for safe storage, inc	luding any incompatibilities
Storage Conditions	Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Store at 4 °C.
Incompatible materials	None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters Exposure Guidelines	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
Appropriate engineering contro	ls
Engineering Controls	Showers
0 0	Eyewash stations
	Ventilation systems
Individual protection measures,	such as personal protective equipment
Eye/face protection	Tight sealing safety 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	When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	liquid
Appearance	No information available
Odor	No information available
Property pH Melting point/freezing point Boiling point Flash point Density Evaporation rate Upper flammability limits	ValuesNo information available-19.99 °C133 °C33 °C CC (closed cup)0.87 g/cm³No information availableNo information available



Lower flammability limit Vapor pressure Vapor density Specific gravity Water solubility Solubility in other solvents Partition coefficient Autoignition temperature Decomposition temperature Kinematic viscosity Explosive properties Oxidizing properties No information available 7 No information available No information available No information available 0.53 145 °C No information available No information available No information available No information available No information available

10. STABILITY AND REACTIVITY

Reactivity	Not applic
Chemical stability	Stable un
Possibility of Hazardous Reactions	None und
Hazardous polymerization	No inform
Conditions to avoid	Heat, flan
Incompatible materials	Strong ox
Hazardous Decomposition Products	Carbon of

ot applicable table under recommended storage conditions. one under normal processing. o information available. eat, flames and sparks. trong oxidizing agents. arbon oxides.

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 toxicityNo information availableThe following values are calculated based on chapter 3.1 of the GHS documentATEmix (oral)690 mg/kgATEmix (dermal)3400 mg/kgATEmix (inhalation-dust/mist)0.5 mg/lATEmix (inhalation-vapor)3.7 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects

Chemical Name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
3-Methylcrotonaldehyde 107-86-8	22.9: 96 h Desmodesmus subspicatus mg/L EC50 19.9: 72 h Desmodesmus subspicatus mg/L EC50	10: 96 h Leuciscus idus mg/L LC50 static	-	13.5: 48 h Daphnia magna mg/L EC50



0% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

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

Chemical Name	Partition coefficient
3-Methylcrotonaldehyde 107-86-8	0.53

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.
Other Information	Waste codes should be assigned by the user based on the application for which the product was used.
US EPA Waste Number	D002

14. TRANSPORT INFORMATION

DOT

UN/ID no Hazard Class Subsidiary class Packing Group Proper shipping name Description Emergency Response Guide Number	UN2920 8 3 II Corrosive liquids, flammable, n.o.s. UN2920, Corrosive liquids, flammable, n.o.s., 8 (3), II 132
IMDG UN/ID no Hazard Class Subsidiary hazard class Packing Group Proper shipping name Description Special Provisions EmS-No	UN2920 8 3 II Corrosive liquid, flammable, n.o.s. UN2920, Corrosive liquid, flammable, n.o.s., 8 (3), II, (33°C c.c.) 274 F-E, S-C
IATA UN/ID no Hazard Class Subsidiary hazard class Packing Group Proper shipping name Description	UN2920 8 3 II Corrosive liquid, flammable, n.o.s. UN2920, Corrosive liquid, flammable, n.o.s., 8 (3), II

15. REGULATORY INFORMATION

International Inventories

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

TSCA (United States): Canada (DSL/NDSL) Europe (EINECS/ELINCS/NLP) Australia (AICS) China (IECSC) ENCS (Japan): Philippines (PICCS)



Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
3-Methylcrotonaldehyde	Х	Х	-	Х	-	Х	Х	-	Х	Х

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	Yes
Chronic Health Hazard	No
Fire hazard	Yes
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

This product does not contain any substances regulated by 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