



The Power to Question

SAFETY DATA SHEET

Santa Cruz Biotechnology, Inc.

Revision date 24-Mar-2021

Version 1

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

1.1. Product Identifier

Product Name	2,3,3-Trimethyl-1-butene
Product Code	SC-230866
EC No	209-845-1
CAS No	594-56-9
Pure substance/mixture	Substance
Contains 2,3,3-Trimethyl-1-butene	

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

Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Specific target organ toxicity (single exposure)	Category 3 - (H335)
Flammable liquids	Category 2 - (H225)

2.2. Label Elements

Contains 2,3,3-Trimethyl-1-butene

Signal word

Danger

Symbols/Pictograms



Hazard statements

H315 - Causes skin irritation
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H225 - Highly flammable liquid and vapor

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

P264 - Wash face, hands and any exposed skin thoroughly after handling
P280 - Wear protective gloves
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water



P321 - Specific treatment (see Emergency Phone Number on this label)
 P332 + P313 - If skin irritation occurs: Get medical advice/attention
 P362 - Take off contaminated clothing and wash before reuse
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P337 + P313 - If eye irritation persists: Get medical advice/attention
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
 P271 - Use only outdoors or in a well-ventilated area
 P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
 P312 - Call a POISON CENTER or doctor if you feel unwell
 P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
 P405 - Store locked up
 P501 - Dispose of contents/ container to an approved waste disposal plant
 P210 - Keep away from heat/sparks/open flames/hot surfaces. — No smoking
 P233 - Keep container tightly closed
 P240 - Ground/bond container and receiving equipment
 P242 - Use only non-sparking tools
 P243 - Take precautionary measures against static discharge
 P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish
 P403 + P235 - Store in a well-ventilated place. Keep cool
 P501 - Dispose of contents/container to industrial incineration plant
 Use explosion-proof electrical/ ventilating/ lighting/ equipment

2.3. Other Hazards

General Hazards

Not applicable

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Molecular Weight 98.19
 Formula C₇H₁₄

3.1 Substances

Chemical name	EC No	CAS No.	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2,3,3-Trimethyl-1-butene	Present	594-56-9	100	Flam. Liq. 2 (H225) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)

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

Note to physicians	Treat symptomatically.
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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.
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5.2. Special hazards arising from the substance or mixture

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

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.
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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.
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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.
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7.3. Specific end use(s)

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

Chemical name	European Union	United Kingdom	France	Spain	Germany
2,3,3-Trimethyl-1-butene 594-56-9			TWA: 1000 mg/m ³ STEL: 1500 mg/m ³		
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
2,3,3-Trimethyl-1-butene 594-56-9				TWA: 40 ppm TWA: 275 mg/m ³ STEL: 60 ppm STEL: 343.75 mg/m ³	

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

Property

Values

pH

No information available

Melting point/freezing point

No information available

Boiling point

78 °C

Flash point

-17 °C CC (closed cup)

Liquid Density

0.705 g/cm³

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	Carbon oxides.

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	100% of the mixture consists of ingredient(s) of unknown toxicity.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity	May cause long lasting harmful effects to aquatic life.
Unknown aquatic toxicity	100% 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.
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12.3. Bioaccumulative potential

Bioaccumulation	No information available.
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12.4. Mobility in soil

Mobility	No information available.
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12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment	No information available.
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12.6. Other adverse effects

Other adverse effects	No information available
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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>	<u>IMDG</u>	<u>ICAO (air) / IATA</u>
14.1 UN/ID no	UN3295	UN3295	UN3295
14.2 Proper shipping name	Hydrocarbons, liquid, n.o.s.	Hydrocarbons, liquid, n.o.s.	Hydrocarbons, liquid, n.o.s.
14.3 Hazard Class	3	3	3
Subsidiary hazard class / Labels	-	-	-
14.4 Packing Group	II	II	II
14.5 14.5 Environmental Hazard	-	-	-
14.6 14.6 Special Provisions	640C	-	A325, A3
	Classification code F1 Tunnel restriction code (D/E)	EmS-No F-E, S-D	ERG Code 3H

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

Canada (DSL/NDSL) Europe (EINECS/ELINCS/NLP) South Korea (KECL):

Chemical name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
2,3,3-Trimethyl-1-butene	-	-	-	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

H225 - Highly flammable liquid and vapor

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

No information available.

Revision note



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