



The Power to Question

# SAFETY DATA SHEET

Santa Cruz Biotechnology, Inc.

Revision date 22-Feb-2022

Version 1

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

### Product identifier

Product Name Isobutyraldehyde  
Product Code SC-250180

### 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  
Serious eye damage/eye irritation  
Flammable liquids

Category 4  
Category 2A  
Category 2

### Label elements

Signal word  
Hazard statements

Danger  
Harmful if swallowed  
Causes serious eye irritation  
Highly flammable liquid and vapor

Symbols/Pictograms



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Wear protective gloves/protective clothing/eye protection/face protection  
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



## Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 If eye irritation persists: Get medical advice/attention  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
 Rinse mouth  
 In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction  
 Store in a well-ventilated place. Keep cool  
 Dispose of contents/container to an approved waste disposal plant

Precautionary Statements - Storage  
 Precautionary Statements - Disposal

**Hazards not otherwise classified (HNOC)**

Hazards not otherwise classified (HNOC)

Not applicable

**Other Information**

Other hazards

Harmful to aquatic life.

**NFPA**

Health hazards 0  
 Flammability 3  
 Stability 0  
 Physical and chemical properties -

**HMIS**

Health hazards 0  
 Flammability 3  
 Physical hazards 0  
 Personal protection -

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

CAS No 78-84-2  
 Molecular Weight 72.11  
 Formula (CH<sub>3</sub>)<sub>2</sub>CHCHO

Chemical name	CAS No.	Weight-%	Oral LD50	Dermal LD50	Inhalation LC50
Isobutyraldehyde	78-84-2	>98	= 960 mg/kg ( Rat )	= 5630 mg/kg ( Rabbit )	-

**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	No information available.

**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	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.
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**6. ACCIDENTAL RELEASE MEASURES**

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**Personal precautions, protective equipment and emergency procedures**

Personal precautions	Ensure adequate ventilation, especially in confined areas.
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**Environmental precautions**

Environmental precautions	See Section 12 for additional Ecological Information.
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**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.

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**7. HANDLING AND STORAGE**

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**Precautions for safe handling**

Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice.
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**Conditions for safe storage, including any incompatibilities**

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Store at 4 °C.
Incompatible materials	None known based on information supplied.

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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**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.
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**Appropriate engineering controls**

Engineering Controls	Showers Eyewash stations Ventilation systems
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**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

<u>Property</u>	<u>Values</u>
pH	No information available
Melting point/freezing point	-65 °C
Boiling point	63 °C
Flash point	-24 °C CC (closed cup)
Liquid Density	0.79 g/cm <sup>3</sup>
Evaporation rate	No information available
Upper flammability limits	11.0%
Lower flammability limit	1.6%
Vapor pressure	189 mmHg
Vapor density	2.49
Specific gravity	No information available
Water solubility	No information available
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	180 °C
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	Carbon 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 toxicity No information available

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 960 mg/kg  
ATEmix (dermal) 5630 mg/kg

## 12. ECOLOGICAL INFORMATION

Ecotoxicity Harmful to aquatic life

Chemical name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
Isobutyraldehyde 78-84-2	84: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50	23: 96 h <i>Pimephales promelas</i> mg/L LC50 static	-	277: 48 h <i>Daphnia magna</i> Straus mg/L EC50

0% 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.

Chemical name	Partition coefficient
Isobutyraldehyde 78-84-2	0.77

## 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.

## 14. TRANSPORT INFORMATION

### DOT

UN/ID no UN2045  
Hazard Class 3  
Packing Group II  
Proper shipping name Isobutyraldehyde  
Description UN2045, Isobutyraldehyde, 3, II  
Emergency Response Guide Number 130

### IMDG

UN/ID no UN2045  
Hazard Class 3  
Packing Group II  
Proper shipping name Isobutyl aldehyde  
Description UN2045, Isobutyl aldehyde, 3, II, (-24°C c.c.)  
EmS-No F-E, S-D

**IATA**

UN/ID no	UN2045
Hazard Class	3
Packing Group	II
Proper shipping name	Isobutyl aldehyde
Description	UN2045, Isobutyl aldehyde, 3, II
ERG Code	3H

**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) South Korea (KECL): China (IECSC) ENCS (Japan): Philippines (PICCS)

Chemical name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Isobutyraldehyde	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	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**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Isobutyraldehyde 78-84-2	X	X	X

**16. OTHER INFORMATION**



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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**