



The Power to Question

SAFETY DATA SHEET

Santa Cruz Biotechnology, Inc.

Revision date 22-Apr-2019

Version 1.1

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

Product identifier

Product Name 2-Methylbutyric acid
Product Code SC-238149

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 Category 4
Acute toxicity - Dermal Category 4
Skin corrosion/irritation Category 1 Sub-category B
Serious eye damage/eye irritation Category 1
Flammable liquids Category 4

Label elements

Signal word Danger
Hazard statements Causes severe skin burns and eye damage

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
Do not breathe dust/fume/gas/mist/vapors/spray
Keep away from heat/sparks/open flames/hot surfaces. — No smoking



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
 Call a POISON CENTER or doctor/physician if you feel unwell
 Wash contaminated clothing before reuse
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 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/physician if you feel unwell
 Rinse mouth
 Do NOT induce vomiting
 In case of fire: Use CO₂, dry chemical, or foam for extinction
 Store locked up 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

| | | | | | | |
|-------------|----------------------------------|---|--|-------------|---------------------|---|
| NFPA | Health hazards | 3 | | HMIS | Health hazards | 3 |
| | Flammability | 2 | | | Flammability | 2 |
| | Stability | 0 | | | Physical hazards | 0 |
| | Physical and chemical properties | - | | | Personal protection | - |
| | | | | | | |

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS No 116-53-0
 Molecular Weight 102.13
 Formula C₅H₁₀O₂

| Chemical name | CAS No. | Weight-% | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|----------------------|----------|----------|----------------------|-------------------------|-----------------|
| 2-Methylbutyric acid | 116-53-0 | >98 | = 1870 µL/kg (Rat) | = 1460 µL/kg (Rabbit) | - |

4. FIRST AID MEASURES

First Aid Measures

General advice If symptoms persist, call a physician.
 Eye contact 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 Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
 Inhalation Immediate medical attention is not required If symptoms persist, call a physician Move to fresh air in case of accidental inhalation of vapors or decomposition products
 Ingestion Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician. Do NOT induce vomiting.
 Self-protection of the first aider Use personal protective equipment as required.

**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. Dry chemical. Carbon dioxide (CO₂). Water spray (fog). Alcohol resistant foam.

Unsuitable Extinguishing Media No information available.

Specific hazards arising from the chemical

Specific hazards arising from the chemical Keep product and empty container away from heat and sources of ignition. Risk of ignition.

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.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal precautions Use personal protective equipment as required. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Pay attention to flashback. Take precautionary measures against static discharges.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

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 Soak up with inert absorbent material. Dam up. Pick up and transfer to properly labeled containers. Take precautionary measures against static discharges.

7. HANDLING AND STORAGE**Precautions for safe handling**

Advice on safe handling Noxious vapor/odor. Ensure adequate ventilation, especially in confined areas. Use with local exhaust ventilation. All equipment used when handling the product must be grounded. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).



Conditions for safe storage, including any incompatibilities

| | |
|------------------------|---|
| Storage Conditions | Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep containers tightly closed in a cool, well-ventilated place. |
| Incompatible materials | Keep away from heat. Keep in properly labeled containers. Store at room temperature. 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 controls

| | |
|----------------------|---|
| Engineering Controls | Ensure adequate ventilation, especially in confined areas |
|----------------------|---|

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 |

| <u>Property</u> | <u>Values</u> |
|------------------------------|--------------------------|
| pH | No information available |
| Melting point/freezing point | No information available |
| Boiling point | 176 °C |
| Flash point | 74 °C CC (closed cup) |
| Liquid Density | 0.963 g/mL |
| Evaporation rate | No information available |
| Upper flammability limits | No information available |
| Lower flammability limit | No information available |
| Vapor pressure | 0.5 mmHg |
| 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 | Heat, flames and sparks. |
| 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) | 1864 mg/kg |
| ATEmix (dermal) | 1456 mg/kg |

12. ECOLOGICAL INFORMATION

| | |
|-------------|--|
| Ecotoxicity | May cause long lasting harmful effects to aquatic life |
|-------------|--|

100% of the mixture consists of component(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 | D002 |

14. TRANSPORT INFORMATION



DOT

UN/ID no UN3265
 Hazard Class 8
 Packing Group III
 Proper shipping name Corrosive liquid, acidic, organic, n.o.s.
 Description UN3265, Corrosive liquid, acidic, organic, n.o.s., 8, III
 Emergency Response Guide Number 153

IMDG

UN/ID no UN3265
 Hazard Class 8
 Packing Group III
 Proper shipping name Corrosive liquid, acidic, organic, n.o.s.
 Description UN3265, Corrosive liquid, acidic, organic, n.o.s., 8, III
 Special Provisions 223, 274
 EmS-No F-A, S-B

IATA

UN/ID no UN3265
 Hazard Class 8
 Packing Group III
 Proper shipping name Corrosive liquid, acidic, organic, n.o.s.
 Description UN3265, Corrosive liquid, acidic, organic, n.o.s., 8, III
 ERG Code 8L

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 |
|----------------------|------|-----|------|--------|--------|------|-------|------|-------|------|
| 2-Methylbutyric acid | 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

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