

Benzyl mercaptan: sc-353053



The Power to Question

MATERIAL SAFETY DATA SHEET

1 Identification of substance:

Product Name: Benzyl mercaptan
Catalog Number: sc-353053
Supplier: Santa Cruz Biotechnology, Inc.
2145 Delaware Avenue
Santa Cruz, California 95060
800.457.3801 or 831.457.3800
Emergency: ChemWatch
Within the US & Canada: 877-715-9305
Outside the US & Canada: +800 2436 2255
(1-800-CHEMCALL) or call +613 9573 3112

2 Hazards identification

Classification of the substance or mixture



GHS06 Skull and crossbones

H330 Fatal if inhaled.



GHS09 Environment

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.



GHS07

H302 Harmful if swallowed.

H227 Combustible liquid.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



T; Toxic

R23: Toxic by inhalation.



Xn; Harmful

R22: Harmful if swallowed.



N; Dangerous for the environment

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Label elements

Labelling according to EU guidelines:

Code letter and hazard designation of product:

T Toxic

N Dangerous for the environment

Risk phrases:

22 Harmful if swallowed.

23 Toxic by inhalation.

50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Safety phrases:

23 Do not breathe fumes / aerosol

36 Wear suitable protective clothing.

45 In case of accident or if you feel unwell, seek medical advice immediately.

60 This material and its container must be disposed of as hazardous waste.

61 Avoid release to the environment. Refer to special instructions/Safety data sheets

Hazard description:
WHMIS classification



Classification system
HMIS ratings (scale 0-4)
(Hazardous Materials Identification System)

HEALTH	3
FIRE	2
REACTIVITY	1

Health (acute effects) = 3
Flammability = 2
Reactivity = 1

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Substances

(CAS#) Description:

Benzyl mercaptan (CAS# 100-53-8)

Identification number(s):

EINECS Number: 202-862-5

4 First aid measures

Description of first aid measures

General information

Immediately remove any clothing soiled by the product.

In case of irregular breathing or respiratory arrest provide artificial respiration.

After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm.

Seek immediate medical advice.

After skin contact

Immediately wash with water and soap and rinse thoroughly.

Seek immediate medical advice.

After eye contact

Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing

Do not induce vomiting; immediately call for medical help.

Seek immediate medical advice.

5 Firefighting measures

Extinguishing media

Suitable extinguishing agents

Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents Water with full jet.

Special hazards arising from the substance or mixture

In case of fire, the following can be released:

Carbon monoxide and carbon dioxide

Sulfur oxides (SO_x)

Advice for firefighters

Protective equipment:

Wear self-contained respirator.

Wear fully protective impervious suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Environmental precautions:

Do not allow material to be released to the environment without proper governmental permits.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

Handling

Precautions for safe handling

Handle under dry protective gas.
Keep container tightly sealed.
Store in cool, dry place in tightly closed containers.
Ensure good ventilation at the workplace.
Open and handle container with care.
Prevent formation of aerosols.

Information about protection against explosions and fires: Keep ignition sources away.

Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility:

Store away from oxidizing agents.
Store away from air.

Further information about storage conditions:

Store under dry inert gas. Store at room temperature.
Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
This product is air sensitive.

8 Exposure controls/personal protection

Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Control parameters

Components with limit values that require monitoring at the workplace: Not required.

Additional information: No data

Exposure controls

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Remove all soiled and contaminated clothing immediately.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

Breathing equipment: Use suitable respirator when high concentrations are present.

Protection of hands:

Impervious gloves
Check protective gloves prior to each use for their proper condition.

Material of gloves

The selection of suitable gloves not only depends on the material, but also on quality.
Quality will vary from manufacturer to manufacturer.

Eye protection: Safety glasses

Body protection: Protective work clothing.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form:	Liquid
Formula:	C7H8S
Weight:	124.20

pH-value:	Not determined.
-----------	-----------------

Change in condition

Melting point/Melting range:	-30°C (-22 °F)
Boiling point/Boiling range:	194-195°C (381-383 °F)
Sublimation temperature / start:	Not determined

Flash point:	70°C (158 °F)
--------------	---------------

Flammability (solid, gaseous)	Not applicable.
-------------------------------	-----------------

Ignition temperature:	>270°C (>518 °F)
-----------------------	------------------

Decomposition temperature:	Not determined
----------------------------	----------------

Auto igniting:	Not determined.
----------------	-----------------

Danger of explosion:	Product does not present an explosion hazard.
----------------------	---

Explosion limits:

Lower:	1 Vol %
Upper:	Not determined

Vapor pressure at 20°C (68 °F):	0.5 hPa
---------------------------------	---------

Density at 20°C (68 °F):	1.053 g/cm ³ (8.787 lbs/gal)
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with Water:	Not miscible or difficult to mix
Segregation coefficient (n-octanol/water):	Not determined.
Viscosity:	
dynamic:	Not determined.
kinematic:	Not determined.
Other information	No further relevant information available.

10 Stability and reactivity

Reactivity

Chemical stability

Thermal decomposition / conditions to be avoided:

Decomposition will not occur if used and stored according to specifications.

Possibility of hazardous reactions No dangerous reactions known

Incompatible materials:

Oxidizing agents

Air

Hazardous decomposition products:

Carbon monoxide and carbon dioxide

Sulfur oxides (SO_x)

Hydrogen sulfide

11 Toxicological information

Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification:

Oral	LD50	493 mg/kg (rat) (external SDS)
Inhalative	LC50/4H	900 mg/m ³ /4H (mouse) (external SDS) 178 ppm/4H (rat) (external SDS)
Irritation of skin	mild	unknown mg (rabbit) (external SDS)
Irritation of eyes	mild	unknown mg (rabbit) (external SDS)

Primary irritant effect:

on the skin: Causes mild irritant effect.

on the eye: Causes mild irritant effect.

Sensitization: No sensitizing effects known.

Subacute to chronic toxicity:

Subacute to chronic toxicity:

Thiols/mercaptans may be skin, eye and respiratory irritants. Inhalation may cause central nervous system effects. Often the strong penetrating odor acts to minimize inhalation exposure.

Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

12 Ecological information

Toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

Behavior in environmental systems:

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Ecotoxicological effects:

Remark: Very toxic for aquatic organisms

Additional ecological information:

General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Also poisonous for fish and plankton in water bodies.

Do not allow material to be released to the environment without proper governmental permits.

Very toxic for aquatic organisms

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects No further relevant information available.

13 Disposal considerations

Waste treatment methods

Recommendation Consult state, local or national regulations to ensure proper disposal.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

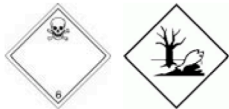
14 Transport information

DOT regulations:



Hazard class: 6.1
Identification number: UN2810
Packing group: II
Proper shipping name (technical name): TOXIC LIQUID, ORGANIC, N.O.S. (Benzyl mercaptan)
Label: 6.1
Remarks: Special marking with the symbol (fish and tree).

Land transport ADR/RID (cross-border)



ADR/RID class: 6.1 (T1) Toxic substances
Danger code (Kemler): 60
UN-Number: 2810
Packaging group: II
Special marking: Symbol (fish and tree)
UN proper shipping name: 2810 TOXIC LIQUID, ORGANIC, N.O.S. (Benzyl mercaptan)

Maritime transport IMDG:



IMDG Class: 6.1
UN Number: 2810
Label: 6.1
Packaging group: II
Marine pollutant: Yes (P)
Symbol (fish and tree)
Proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (Benzyl mercaptan)

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class: 6.1
UN/ID Number: 2810
Label: 6.1
Packaging group: II
Proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (Benzyl mercaptan)

UN "Model Regulation": UN2810, TOXIC LIQUID, ORGANIC, N.O.S., 6.1, II
Environmental hazards: Environmentally hazardous substance, liquid; Marine Pollutant
Special precautions for user Warning: Toxic substances
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Product related hazard informations:

Hazard symbols:

T Toxic
N Dangerous for the environment

Risk phrases:

22 Harmful if swallowed.
23 Toxic by inhalation.
50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Safety phrases:

23 Do not breathe fumes / aerosol

36 Wear suitable protective clothing.

45 In case of accident or if you feel unwell, seek medical advice immediately.

60 This material and its container must be disposed of as hazardous waste.

61 Avoid release to the environment. Refer to special instructions/Safety data sheets

National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

All components of this product are listed on the Canadian Domestic Substances List (DSL).

Information about limitation of use: For use only by technically qualified individuals.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information:

The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.

4/18/2013