

Octocure MBT-100

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name

Octocure MBT-100

MBT-Powder

MBT-powder (CN)

Substance name benzothiazole-2-thiol
REACH registration no. 01-2119485805-26

Identification numbers

CAS no. 149-30-4
EC no. 205-736-8
Index no. 613-108-00-3

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses of the substance or mixture

Industrial raw material
Use in rubber production and processing.
Intermediate

Uses advised against

No data available.

1.3 Details of the supplier of the safety data sheet

Address

Tiarco Chemical Europe GmbH
Am Gut Baarking 12
46395 Bocholt

Telephone no. +49 2871 23476-0
Fax no. +49 2871 23476-44
e-mail europeansales@trcc.com

Advice on Safety Data Sheet

sdb_info@umco.de

1.4 Emergency telephone number

For medical advice (in German and English):
+49 (0)551 192 40 (Giftinformationszentrum Nord)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 (CLP)

Aquatic Acute 1; H400
Aquatic Chronic 1; H410
Skin Sens. 1; H317

Classification information

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:

Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP

Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3 and 4 of Annex I to CLP.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)

Product identifier

149-30-4 (benzothiazole-2-thiol)

Hazard pictograms

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GHS07



GHS09

Signal word

Warning

Hazard statement(s)

H317

May cause an allergic skin reaction.

H410

Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P273

Avoid release to the environment.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P333+P313

If skin irritation or rash occurs: Get medical advice/attention.

P391

Collect spillage.

P501

Dispose of contents/container to a facility in accordance with local and national regulations.

2.3 Other hazards

PBT assessment

The product is not considered to be a PBT.

vPvB assessment

The product is not considered to be a vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical characterization

Substance name benzothiazole-2-thiol

Degree of purity $\geq 98\%$

Formula C₇H₅NS₂

Identification numbers

CAS no. 149-30-4

EC no. 205-736-8

Index no. 613-108-00-3

3.2 Mixtures

Not applicable. The product is not a mixture.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

In case of persisting adverse effects, consult a physician. Change contaminated, saturated clothing.

After inhalation

Remove affected person from the immediate area. Ensure supply of fresh air.

After skin contact

Wash off immediately with soap and water. Consult a doctor if skin irritation persists.

After eye contact

Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). Seek medical assistance.

After ingestion

Seek medical advice immediately. Rinse the mouth thoroughly with water. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms

Allergic symptoms

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Octocure MBT-100**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing media**

Foam; Carbon dioxide; Extinguishing powder; Water spray jet

Unsuitable extinguishing media

High power water jet

5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Carbon dioxide (CO₂); Carbon monoxide (CO); Nitrous oxides (NO_x); Sulphur oxides (S_xO_y)

5.3 Advice for firefighters

Fire-fighting operations, rescue and clearing work under effect of combustion and smoulder gases just may be done with breathing apparatus. Wear full protective suit. Run-off water from fire fighting must not be discharged into drains or enter surface water. Containers close to fire should be transferred to a safe place. Cool endangered containers with water spray jet. Potential risk of explosion in the event of a fire. Extinguish fire from a safe distance due to the risk of explosion.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation. Avoid dust formation. Keep away from ignition sources. Use breathing apparatus if exposed to vapours/dust/aerosol. Use personal protective clothing.

For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.

6.3 Methods and material for containment and cleaning up

Collect mechanically. When collected, handle material as described under the section heading "Disposal considerations".

6.4 Reference to other sections

Information regarding safe handling, see section 7. Information regarding personal protective measures, see section 8. Information regarding waste disposal, see section 13.

SECTION 7: Handling and storage**7.1 Precautions for safe handling****Advice on safe handling**

No special measures necessary if stored and handled as prescribed. Avoid the formation and deposition of dust. Provide good ventilation at the work area (local exhaust ventilation, if necessary).

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Wash hands before breaks and after work. Avoid contact with skin. Provide eye wash fountain in work area. Do not inhale dust. Have emergency shower available. Do not eat or drink during work - no smoking.

Advice on protection against fire and explosion

Dust can form an explosive mixture with air. Take precautionary measures against static charges. Keep away from sources of heat and ignition.

7.2 Conditions for safe storage, including any incompatibilities**Technical measures and storage conditions**

Keep container tightly closed in a cool, well-ventilated place.

Recommended storage temperature

Value < 50 °C

Requirements for storage rooms and vessels

Keep only in the original container. Protect from heat and direct sunlight. Containers which are opened must be carefully closed and kept upright to prevent leakage.

Incompatible products

Do not store with strong oxidizing agents. Do not store together with foodstuffs.

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7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

DNEL, DMEL and PNEC values

DNEL values (worker)

No	Substance name			CAS / EC no
	Route of exposure	Exposure time	Effect	Value
1	benzothiazole-2-thiol			149-30-4 205-736-8
	dermal	Long term (chronic)		5 mg/kg/day
	dermal	Short term (acute)		40 mg/kg/day
	inhalative	Long term (chronic)		8.8 mg/m ³
	inhalative	Short term (acute)		70.4 mg/m ³

DNEL value (consumer)

No	Substance name			CAS / EC no
	Route of exposure	Exposure time	Effect	Value
1	benzothiazole-2-thiol			149-30-4 205-736-8
	oral	Long term (chronic)		1.25 mg/kg/day
	oral	Short term (acute)		10 mg/kg/day
	dermal	Long term (chronic)		2.5 mg/kg/day
	dermal	Short term (acute)		20 mg/kg/day
	inhalative	Long term (chronic)		2.2 mg/m ³
	inhalative	Short term (acute)		17.6 mg/m ³

PNEC values

No	Substance name		CAS / EC no
	ecological compartment	Type	Value
1	benzothiazole-2-thiol		149-30-4 205-736-8
	water	fresh water	0.004 mg/L
	water	Aqua intermittent	0.005 mg/L
	water	fresh water sediment	0.147 mg/kg dry weight
	water	marine water	0 mg/L
	water	marine water sediment	0.015 mg/kg dry weight
	soil	-	0.027 mg/kg dry weight
	sewage treatment plant	-	0.3 mg/L

8.2 Exposure controls

Appropriate engineering controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL (=Occupational Exposure Limit), suitable respiratory protection must be worn.

Personal protective equipment

Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of dust formation, take appropriate measures for breathing protection in the event that workplace threshold values are not specified. Dust mask

Eye / face protection

Safety glasses with side protection shield (EN 166)

Hand protection

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In case of intensive contact, wear protective gloves (EN 374). Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Appropriate Material polyvinyl chloride (PVC), nitrile butadiene rubber (NBR), polychloroprene (CR)

Breakthrough time < 1 h

Other

Normal chemical work clothing. Make sure when selecting personal protective equipment (PPE), that it is suitable for the activity, workplace conditions in which it will be used according to the applying European CEN standards and upon consultation with the PPE supplier.

Environmental exposure controls

Do not allow to enter drains or water courses.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

State of aggregation			
solid			
Form			
Powder / granulates			
Colour			
light yellow			
Odour			
sharp			
pH value			
No data available			
Boiling point / boiling range			
No data available			
Melting point/freezing point			
Value	180	-	182 °C
Source	supplier		
Decomposition temperature			
No data available			
Flash point			
Value	200	°C	
Source	supplier		
Ignition temperature			
No data available			
Auto-ignition temperature			
Value	465	°C	
Flammability			
No data available			
Lower explosion limit			
No data available			
Upper explosion limit			
No data available			
Vapour pressure			
Value	~	0	hPa
Reference temperature		25	°C
Source	supplier		
Relative vapour density			
No data available			
Relative density			

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No data available

Density

Value	1.42	g/cm ³
Source	supplier	

Solubility in water

Value	118	mg/l
Reference temperature	25	°C
Source	supplier	

Solubility

No data available

Partition coefficient n-octanol/water (log value)

No	Substance name	CAS no.	EC no.
1	benzothiazole-2-thiol	149-30-4	205-736-8
log Pow		2.42	
with reference to		pH 7	
Method		EPA OPPTS 830.7550	
Source		ECHA	

Kinematic viscosity

No data available

Particle characteristics

No data available

9.2 Other information

Other information

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Dangerous reactions are not expected if the product is handled according to its intended use.

10.2 Chemical stability

Stable under recommended storage and handling conditions (See section 7).

10.3 Possibility of hazardous reactions

Dust can form an explosive mixture with air.

10.4 Conditions to avoid

Heat

10.5 Incompatible materials

strong oxidizing agents; Acids; Bases; Chlorine compounds; Nitrites; Nitrates; nitric oxides

10.6 Hazardous decomposition products

None if stored, handled and transported properly. In case of fire: see section 5.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity

No	Substance name	CAS no.	EC no.
1	benzothiazole-2-thiol	149-30-4	205-736-8
LD50		3800	mg/kg bodyweight
Species		rat	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	

Acute dermal toxicity

No	Substance name	CAS no.	EC no.
1	benzothiazole-2-thiol	149-30-4	205-736-8
LD50		> 7940	mg/kg bodyweight
Species		rabbit	
Source		ECHA	

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Evaluation/classification	Based on available data, the classification criteria are not met.
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Acute inhalational toxicity			
No	Substance name	CAS no.	EC no.
1	benzothiazole-2-thiol	149-30-4	205-736-8
LC50	>	1270	mg/l
Duration of exposure		4	h
State of aggregation	Dust		
Species	rat		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

Skin corrosion/irritation			
No	Substance name	CAS no.	EC no.
1	benzothiazole-2-thiol	149-30-4	205-736-8
Species	rabbit		
Source	ECHA		
Evaluation	non-irritant		

Serious eye damage/irritation			
No	Substance name	CAS no.	EC no.
1	benzothiazole-2-thiol	149-30-4	205-736-8
Species	rabbit		
Source	ECHA		
Evaluation	non-irritant		

Respiratory or skin sensitisation			
No	Substance name	CAS no.	EC no.
1	benzothiazole-2-thiol	149-30-4	205-736-8
Route of exposure	Skin		
Species	guinea pig		
Method	OECD 406		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are met.		

Germ cell mutagenicity			
No	Substance name	CAS no.	EC no.
1	benzothiazole-2-thiol	149-30-4	205-736-8
Type of examination	in vitro gene mutation study in bacteria		
Species	Salmonella typh. TA98, TA100, TA1535, TA1537, TA1538		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
Type of examination	In vivo mammalian somatic cell study: cytogenicity / erythrocyte micronucleus		
Species	mouse		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

Reproduction toxicity			
No	Substance name	CAS no.	EC no.
1	benzothiazole-2-thiol	149-30-4	205-736-8
Route of exposure	oral		
Type of examination	2 generation study		
Species	rats (male/female)		
Method	OECD 416		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
Route of exposure	oral		
Type of examination	Toxicity study		
Species	rabbit		
Method	OECD 414		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

Carcinogenicity			
No	Substance name	CAS no.	EC no.
1	benzothiazole-2-thiol	149-30-4	205-736-8
Route of exposure	oral		

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Type of examination	Toxicity study
Species	rat
Method	OECD 451
Source	ECHA
Evaluation/classification	Based on available data, the classification criteria are not met.

STOT - single exposure

No data available

STOT - repeated exposure

No	Substance name	CAS no.	EC no.
1	benzothiazole-2-thiol	149-30-4	205-736-8
Route of exposure		oral	
Species		rat	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	

Aspiration hazard

No data available

11.2 Information on other hazards

Endocrine disrupting properties

No data available.

Other information

No data available.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish (acute)			
No	Substance name	CAS no.	EC no.
1	benzothiazole-2-thiol	149-30-4	205-736-8
LC50		0.73	mg/l
Duration of exposure		96	h
Species		Oncorhynchus mykiss	
Method		OECD 203	
Source		ECHA	

Toxicity to fish (chronic)			
No	Substance name	CAS no.	EC no.
1	benzothiazole-2-thiol	149-30-4	205-736-8
NOEC		0.041	mg/l
Duration of exposure		89	day(s)
Species		Oncorhynchus mykiss	
Method		OECD 210	
Source		ECHA	

Toxicity to Daphnia (acute)			
No	Substance name	CAS no.	EC no.
1	benzothiazole-2-thiol	149-30-4	205-736-8
EC50		0.71	mg/l
Duration of exposure		48	h
Species		Daphnia magna	
Method		OECD 202	
Source		ECHA	

Toxicity to Daphnia (chronic)			
No	Substance name	CAS no.	EC no.
1	benzothiazole-2-thiol	149-30-4	205-736-8
NOEC		0.08	mg/l
Duration of exposure		21	day(s)
Species		Daphnia magna	
Method		OECD 211	
Source		ECHA	

Toxicity to algae (acute)			
No	Substance name	CAS no.	EC no.

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1	benzothiazole-2-thiol	149-30-4	205-736-8
EC50		0.5	mg/l
Duration of exposure		72	h
Species	Pseudokirchneriella subcapitata		
Method	OECD 201		
Source	ECHA		

Toxicity to algae (chronic)

No data available

Bacteria toxicity

No data available

12.2 Persistence and degradability

Biodegradability			
No	Substance name	CAS no.	EC no.
1	benzothiazole-2-thiol	149-30-4	205-736-8
Value		2.5	%
Duration		14	day(s)
Method	OECD 301 C		
Source	ECHA		
Evaluation	not readily biodegradable		

12.3 Bioaccumulative potential

Bioconcentration factor (BCF)			
No	Substance name	CAS no.	EC no.
1	benzothiazole-2-thiol	149-30-4	205-736-8
BCF		< 8	
with reference to	0,01 mg/L		
Method	OECD 305 C		
Source	ECHA		

Partition coefficient n-octanol/water (log value)			
No	Substance name	CAS no.	EC no.
1	benzothiazole-2-thiol	149-30-4	205-736-8
log Pow		2.42	
with reference to	pH 7		
Method	EPA OPPTS 830.7550		
Source	ECHA		

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	
PBT assessment	The product is not considered to be a PBT.
vPvB assessment	The product is not considered to be a vPvB.

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effects

No data available.

12.8 Other information

Other information
Do not discharge into drains or waters and do not dispose of in public landfills.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residues must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

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SECTION 14: Transport information

14.1 Transport ADR/RID/ADN

Class	9
Classification code	M7
Packing group	III
Hazard identification no.	90
UN number	UN3077
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Technical name	benzothiazole-2-thiol
Tunnel restriction code	-
Label	9
Environmentally hazardous substance mark	Symbol "fish and tree"

14.2 Transport IMDG

Class	9
Packing group	III
UN number	UN3077
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Technical name	benzothiazole-2-thiol
EmS	F-A, S-F
Label	9
Marine pollutant mark	Symbol "fish and tree"

14.3 Transport ICAO-TI / IATA

Class	9
Packing group	III
UN number	UN3077
Proper shipping name	Environmentally hazardous substance, solid, n.o.s.
Technical name	benzothiazole-2-thiol
Label	9
Environmentally hazardous substance mark	Symbol "fish and tree"

14.4 Other information

No data available.

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 Special precautions for user

To be transported always in closed, upright and safe containers. Make sure that persons handling these containers are aware of the rules of conduct in case of incident or spillage.

14.7 Maritime transport in bulk according to IMO instruments

Not relevant

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)

In accordance with the REACH regulation (EC) 1907/2006, the product does not contain any substances that are considered as subject to listing in annex XIV, inventory of substances requiring authorisation.

REACH candidate list of substances of very high concern (SVHC) for authorisation

In accordance with article 57 and article 59 of the Reach regulation (EC) 1907/2006, this substance is not considered as subject to listing in annex XIV, inventory of substances requiring authorisation ("Authorization list").

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES

The substance is considered being subject to REACH regulation (EC) 1907/2006 annex XVII.

No	Substance name	CAS no.	EC no.	No
1	benzothiazole-2-thiol	149-30-4	205-736-8	75

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances

**Octocure MBT-100**

This product is subject to Part I of Annex I, risk category:

E1

15.2 Chemical safety assessment

A chemical safety assessment has been carried out for this substance.

SECTION 16: Other information**Sources of key data used to compile the data sheet:**

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding section.

Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

H400

Very toxic to aquatic life.

Creation of the safety data sheet

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This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

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