OCTOLITE BHT

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

1.1 Product identifier

Trade name

OCTOLITE BHT

Substance name	2,6-di-tert-butyl-p-cresol
REACH registration no.	01-2119565113-46

Identification numbers

CAS no.	128-37-0
EC no.	204-881-4

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
Antioxidant (Stabilizer)
Polymerization inhibitor

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 Chronic 1; H410

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

128-37-0 (2,6-di-tert-butyl-p-cresol)

Hazard pictograms

GHS09

Signal word

Warning

Hazard statement(s)

H410	Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P273	Avoid release to the environment.
P391	Collect spillage.
P501	Dispose of contents/container to a facility in accordance with local and national regulations.

2.3 Other hazards

Fine dust clouds may form explosive mixtures with air.

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	2,6-di-tert-butyl-p-cresol
Formula	C15H24O
Molecular weight	220

Identification numbers

CAS no.	128-37-0
EC no.	204-881-4

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
Change contaminated, saturated clothing.

After inhalation
Remove affected person from the immediate area. Ensure supply of fresh air. In case of persisting adverse effects consult a physician.

After skin contact
Wash off with soap and water. Get medical attention if pain still 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). Get medical attention if pain still persists.

After ingestion
Rinse the mouth thoroughly with water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Call a doctor.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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

Danger of dust explosion when in powder form. In the event of fire, the following can be released: Carbon dioxide (CO2); Carbon monoxide (CO)

5.3 Advice for firefighters

Use self-contained breathing apparatus. Wear full protective suit. Run-off water from fire fighting must not be discharged into drains or enter surface water. Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Use personal protective clothing. Ensure adequate ventilation. Avoid dust formation. Keep away from ignition sources.

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.

6.3 Methods and material for containment and cleaning up

Collect mechanically. Avoid raising dust. 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. Wash hands before breaks and after work. Keep away from foodstuffs and beverages. Do not inhale dust. Avoid contact with skin. Provide eye wash fountain in work area. Have emergency shower available.

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. Containers which are opened must be carefully closed and kept upright to prevent leakage.

Incompatible products
Do not store together with foodstuffs. Substances to be avoided, see section 10.

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

No	Substance name	CAS no.	EC no.
1	**2,6-di-tert-butyl-p-cresol**	**128-37-0**	**204-881-4**
	List of approved workplace exposure limits (WELs) / EH40		
	2,6-Ditertiary-butyl-para-cresol		
	WEL long-term (8-hr TWA reference period)	10	mg/m³

DNEL, DMEL and PNEC values

DNEL values (worker)

No	Substance name			CAS / EC no	
	Route of exposure	Exposure time	Effect	Value	
1	**2,6-di-tert-butyl-p-cresol**			**128-37-0 204-881-4**	
	dermal	Long term (chronic)	systemic	0.5	mg/kg bw/day
	inhalative	Long term (chronic)	systemic	1.76	mg/m³

DNEL value (consumer)

No	Substance name			CAS / EC no	
	Route of exposure	Exposure time	Effect	Value	
1	**2,6-di-tert-butyl-p-cresol**			**128-37-0 204-881-4**	
	oral	Long term (chronic)	systemic	0.25	mg/kg bw/day
	dermal	Long term (chronic)	systemic	0.25	mg/kg bw/day
	inhalative	Long term (chronic)	systemic	0.435	mg/m³

PNEC values

No	Substance name		CAS / EC no	
	ecological compartment	Type	Value	
1	**2,6-di-tert-butyl-p-cresol**		**128-37-0 204-881-4**	
	water	fresh water	0.199	µg/L
	water	marine water	0.02	µg/L
	water	fresh water sediment	0.458	mg/kg dry weight
	water	marine water sediment	0.046	mg/kg dry weight
	soil	-	0,054	mg/kg dry weight
	sewage treatment plant	-	0.017	mg/L
	secondary poisoning	-	16.67	mg/kg
	with reference to: food			

8.2 Exposure controls

Appropriate engineering controls
Provide adequate ventilation. This should be achieved by the use of local exhaust ventilation and good general extraction.

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
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.

Other
Normal chemical work clothing.

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
crystalline

Colour
white

Odour
No data available

pH value
No data available

Boiling point / boiling range				
Value			265	°C
Source	supplier			

Melting point/freezing point				
Value	69	-	73	°C
Source	supplier			

Decomposition temperature
No data available

Flash point	
Not applicable	
Source	supplier

Ignition temperature
No data available

Auto-ignition temperature		
Value	470	°C
Source	supplier	

Flammability
No data available

Lower explosion limit
No data available

Upper explosion limit
No data available

Vapour pressure	
Not applicable	
Source	supplier

Relative vapour density	
Not applicable	
Source	supplier

Evaporation rate	
Not applicable	
Source	supplier

Relative density
No data available

Density		
Value	1.05	g/cm³
Reference temperature	20	°C
Source	supplier	

Solubility in water		
Value	0.0004	g/l
Reference temperature	20	°C
Source	supplier	
Comments	barely soluble	

Solubility
No data available

Soluble in
Toluene; Methanol; Acetone

Partition coefficient n-octanol/water (log value)			
No	**Substance name**	**CAS no.**	**EC no.**
1	**2,6-di-tert-butyl-p-cresol**	**128-37-0**	**204-881-4**

log Pow	5.1
Method	shake-flask and HPLC method
Source	ECHA

Kinematic viscosity		
Value	3.47	mm²/s
Reference temperature	80	°C
Source	supplier	

Particle characteristics
No data available

9.2 Other information

Other information
Dissociation constant: 12.2

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
Keep away sources of ignition. Avoid formation of dust.

10.5 Incompatible materials
Oxidizing agents; Acid chlorides; Acid anhydrides; Bases; copper; brass

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	**2,6-di-tert-butyl-p-cresol**	**128-37-0**	**204-881-4**

LD50	>	6000	mg/kg bodyweight
Species	rat		
Method	OECD 401		
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	**2,6-di-tert-butyl-p-cresol**	**128-37-0**	**204-881-4**

LD50	>	2000	mg/kg bodyweight
Species	rat		
Method	OECD 402		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

Acute inhalational toxicity
No data available

Skin corrosion/irritation			
No	**Substance name**	**CAS no.**	**EC no.**

1	2,6-di-tert-butyl-p-cresol	128-37-0	204-881-4
Species		rabbit	
Source		ECHA	
Evaluation		non-irritant	
Evaluation/classification		Based on available data, the classification criteria are not met.	

Serious eye damage/irritation			
No	Substance name	CAS no.	EC no.
1	2,6-di-tert-butyl-p-cresol	128-37-0	204-881-4
Species		rabbit	
Source		ECHA	
Evaluation		non-irritant	
Evaluation/classification		Based on available data, the classification criteria are not met.	

Respiratory or skin sensitisation			
No	Substance name	CAS no.	EC no.
1	2,6-di-tert-butyl-p-cresol	128-37-0	204-881-4
Route of exposure		Skin	
Species		Human	
Method		Patch-Test	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	

Germ cell mutagenicity			
No	Substance name	CAS no.	EC no.
1	2,6-di-tert-butyl-p-cresol	128-37-0	204-881-4
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 vitro gene mutation study in mammalian cells	
Species		rat	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	
Type of examination		In vitro Mammalian Chromosomal Aberration Test	
Species		Chinese hamster Ovary (CHO)	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	
Type of examination		Genotoxicity in vivo	
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	2,6-di-tert-butyl-p-cresol	128-37-0	204-881-4
Route of exposure		oral	
NOAEL		500	mg/kg bw/d
Type of examination		2 generation study	
Species		rat	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	
Route of exposure		oral	
NOAEL		240	mg/kg bw/d
Type of examination		Toxicity study	
Species		mouse	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	

Carcinogenicity			
No	Substance name	CAS no.	EC no.
1	2,6-di-tert-butyl-p-cresol	128-37-0	204-881-4
Route of exposure		oral	
NOAEL		25	mg/kg bw/d
Type of examination		2 generation study	
Species		rat	
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	**2,6-di-tert-butyl-p-cresol**	**128-37-0**		**204-881-4**
Route of exposure	oral			
NOAEL	>=	61		mg/kg bw/d
Species	pig			
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 data available

Toxicity to fish (chronic)				
No	**Substance name**	**CAS no.**		**EC no.**
1	**2,6-di-tert-butyl-p-cresol**	**128-37-0**		**204-881-4**
NOEC		0.053		mg/l
Duration of exposure		30		day(s)
Species	Oryzias latipes			
Method	OECD 210			
Source	ECHA			

Toxicity to Daphnia (acute)
No data available

Toxicity to Daphnia (chronic)				
No	**Substance name**	**CAS no.**		**EC no.**
1	**2,6-di-tert-butyl-p-cresol**	**128-37-0**		**204-881-4**
NOEC		0.069		mg/l
Duration of exposure		21		day(s)
Species	Daphnia magna			
Method	OECD 211			
Source	ECHA			

Toxicity to algae (acute)
No data available

Toxicity to algae (chronic)
No data available

Bacteria toxicity				
No	**Substance name**	**CAS no.**		**EC no.**
1	**2,6-di-tert-butyl-p-cresol**	**128-37-0**		**204-881-4**
EC50	>	10000		mg/l
Duration of exposure		3		h
Species	activated sludge			
Method	OECD 209			
Source	ECHA			

12.2 Persistence and degradability
No data available.

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log value)			
No	**Substance name**	**CAS no.**	**EC no.**
1	**2,6-di-tert-butyl-p-cresol**	**128-37-0**	**204-881-4**

log Pow	5.1
Method	shake-flask and HPLC method
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.
dispose of in accordance with local regulation.

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.

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	2,6-di-tert-butyl-p-cresol
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	2,6-di-tert-butyl-p-cresol
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	2,6-di-tert-butyl-p-cresol

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 not subject to the provisions of annex XVII (restriction entries) of the Reach regulation (EC) 1907/2006.

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

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.

Alterations/supplements:
Alterations to the previous edition are marked in the left-hand margin.

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