

safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



Laboratoriumdiscounter

Butylhydroxytoluene ≥99,7 %, pure

article number: BHT324.1

Version: **2.0 en**

Replaces version of: 2016-08-23

Version: (1.0)

date of compilation: 2016-08-23

Revision: 2021-04-30

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

1.1 Product identifier

Identification of the substance	Butylated hydroxytoluene
Article number	BHT324.1
Registration number (REACH)	This information is not available.
EC number	204-881-4
CAS number	128-37-0

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

Identified uses: laboratory chemical

1.3 Details of the supplier of the safety data sheet

Laboratoriumdiscounter
Zandvoortstraat 75
1976BN IJmuiden
Nederland

Telephone: +31 (0) 255 700 210

e-mail: info@laboratoriumdiscounter.nl

Website: www.laboratoriumdiscounter.nl

Competent person responsible for the safety data sheet : Department Health, Safety and Environment

e-mail (competent person) : info@laboratoriumdiscounter.nl

1.4 Emergency telephone number

Emergency information service **Poison Centre Munich: +49/(0)89 19240**

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Classification acc. to GHS			
Section	Hazard class	Hazard class and category	Hazard statement
4.1A	hazardous to the aquatic environment - acute hazard	(Aquatic Acute 1)	H400
4.1C	hazardous to the aquatic environment - chronic hazard	(Aquatic Chronic 1)	H410

safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

Butylhydroxytoluene ≥99,7 %, pure

article number: BHT324.1



Laboratoriumdiscounter

Remarks

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

2.2 Label elements

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

Signal word

Warning

Pictograms



Hazard statements

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

Precautionary statements - prevention

P273 Avoid release to the environment.

Precautionary statements - response

P391 Collect spillage.

Labelling of packages where the contents do not exceed 125 ml

Signal word: **Warning**

Symbol(s)



2.3 Other hazards

There is no additional information.

SECTION 3: Composition/information on ingredients

3.1 Substances

Name of substance	Butylated hydroxytoluene
EC number	204-881-4
CAS number	128-37-0
Molecular formula	C ₁₅ H ₂₄ O
Molar mass	220,4 ^g /mol

safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

Butylhydroxytoluene ≥99,7 %, pure

article number: BHT324.1



Laboratoriumdiscounter

SECTION 4: First aid measures

4.1 Description of first aid measures



General notes

Take off contaminated clothing.

Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

Following skin contact

Rinse skin with water/shower. In all cases of doubt, or when symptoms persist, seek medical advice.

Following eye contact

Rinse cautiously with water for several minutes. In all cases of doubt, or when symptoms persist, seek medical advice.

Following ingestion

Rinse mouth. Call a doctor if you feel unwell.

2. Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date

3. Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Firefighting measures

1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings
water spray, foam, dry extinguishing powder, carbon dioxide (CO₂)

Unsuitable extinguishing media

water jet

2. Special hazards arising from the substance or mixture

Combustible. Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Hazardous combustion products

In case of fire may be liberated: carbon monoxide (CO), carbon dioxide (CO₂)

3. Advice for firefighters

Do not allow firefighting water to enter drains or water courses. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

Butylhydroxytoluene ≥99,7 %, pure

article number: BHT324.1



Laboratoriumdiscounter

SECTION 6: Accidental release measures

1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. Do not breathe dust. Avoid contact with skin, eyes and clothes.

2. Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

3. Methods and material for containment and cleaning up

Advices on how to contain a spill

Covering of drains.

Advices on how to clean up a spill

Take up mechanically. Control of dust.

Other information relating to spills and releases

Place in appropriate containers for disposal.

4. Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8.

Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

1. Precautions for safe handling

Provision of sufficient ventilation.

• Measures to prevent fire as well as aerosol and dust generation

Removal of dust deposits.

Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

2. Conditions for safe storage, including any incompatibilities

Store in a dry place.

Incompatible substances or mixtures

Observe hints for combined storage.

Consideration of other advice

• Ventilation requirements

Use local and general ventilation.

• Specific designs for storage rooms or vessels

Recommended storage temperature: 15 - 25 °C.

3. Specific end use(s)

No information available.

safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

Butylhydroxytoluene $\geq 99,7$ %, pure

article number: BHT324.1



Laboratoriumdiscounter

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Notation	Identifier	TWA [mg/m ³]	STEL [mg/m ³]	Source
GB	dust		i	WEL	10		EH40/2005
GB	dust		r	WEL	4		EH40/2005
GB	2,6-di-tert-butyl-p-cresol	128-37-0		WEL	10		EH40/2005

Notation

i Inhalable fraction

r Respirable fraction

STEL Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified

TWA Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average

Relevant DNELs/DMELs/PNECs and other threshold levels

• human health values

Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
DNEL	4,4 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
DNEL	18 mg/m ³	human, inhalatory	worker (industry)	acute - systemic effects
DNEL	4,7 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
DNEL	19 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects

• environmental values

Endpoint	Threshold level	Environmental compartment	Exposure time
PNEC	8,33 mg/kg	water	short-term (single instance)
PNEC	0,199 µg/l	freshwater	short-term (single instance)
PNEC	0,02 µg/l	marine water	short-term (single instance)
PNEC	1,99 µg/l	water	intermittent release
PNEC	0,17 mg/l	sewage treatment plant (STP)	short-term (single instance)
PNEC	99,6 µg/kg	freshwater sediment	short-term (single instance)
PNEC	9,96 µg/kg	marine sediment	short-term (single instance)
PNEC	47,69 µg/kg	soil	short-term (single instance)

safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

Butylhydroxytoluene ≥99,7 %, pure

article number: BHT324.1



Laboratoriumdiscounter

8.2 Exposure controls

Individual protection measures (personal protective equipment)



Eye/face protection

Use safety goggle with side protection.

Skin protection

• hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

• type of material

NBR (Nitrile rubber)

• material thickness

>0,11 mm

• breakthrough times of the glove material

>480 minutes (permeation: level 6)

• other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

Respiratory protection

Respiratory protection necessary at: Dust formation. Particulate filter device (EN 143). P1 (filters at least 80 % of airborne particles, colour code: White).

Environmental exposure controls

Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	solid (powder, crystalline)
Colour	colourless
Odour	odourless
Odour threshold	No data available

Other physical and chemical parameters

pH (value)	This information is not available.
Melting point/freezing point	69 - 71 °C
Initial boiling point and boiling range	265 °C at 1.013 hPa
Flash point	127 °C (closed cup)
Evaporation rate	no data available
Flammability (solid, gas)	Non-flammable

safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

Butylhydroxytoluene ≥99,7 %, pure

article number: BHT324.1



Laboratoriumdiscounter

Explosive limits

• lower explosion limit (LEL)	this information is not available this
• upper explosion limit (UEL)	information is not available these
Explosion limits of dust clouds	information are not available 0,011
Vapour pressure	hPa at 20 °C
Density	1,03 g/cm ³ at 20 °C
Vapour density	7,61 (air = 1)
Bulk density	450 kg/m ³
Relative density	Information on this property is not available.

Solubility(ies)

Water solubility 0,76 mg/l at 20 °C

Partition coefficient

n-octanol/water (log KOW)	5,1 (ECHA)
Soil organic carbon/water (log KOC)	4,363 (ECHA)
Auto-ignition temperature	345 °C
Decomposition temperature	no data available
Viscosity	not relevant (solidmatter)
Explosive properties	Shall not be classified as explosive
Oxidising properties	none

9.2 Other information

Temperature class (EU, acc. to ATEX) T2 (Maximum permissible surface temperature on the equipment: 300°C)

SECTION 10: Stability and reactivity

1. Reactivity

The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

2. Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

3. Possibility of hazardous reactions

Violent reaction with: Alkalis, Bases, Oxidisers, Peroxides, Acid chlorides, inorganic, Sulphuric acid, Strong acid

safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

Butylhydroxytoluene ≥99,7 %, pure

article number: BHT324.1



Laboratoriumdiscounter

- 4. Conditions to avoid**
Direct light irradiation.
- 5. Incompatible materials**
copper, Steel
- 6. Hazardous decomposition products**
Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Shall not be classified as acutely toxic.

Exposure route	Endpoint	Value	Species	Source
oral	LD50	>2.930 mg/kg	rat	ECHA
dermal	LD50	>2.000 mg/kg	rat	ECHA

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

Summary of evaluation of the CMR properties

Shall not be classified as germ cell mutagenic, carcinogenic nor as a reproductive toxicant

• Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

• Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

Symptoms related to the physical, chemical and toxicological characteristics

• If swallowed

data are not available

• If in eyes

data are not available

• If inhaled

data are not available

safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

Butylhydroxytoluene ≥99,7 %, pure

article number: BHT324.1



Laboratoriumdiscounter

• If on skin

data are not available

Other information

Liver and kidney damage, Headache, Unconsciousness, Vertigo

SECTION 12: Ecological information

12.1 Toxicity

Very toxic to aquatic life with long lasting effects.

Aquatic toxicity (acute)

Very toxic to aquatic organisms.

Endpoint	Value	Species	Source	Exposure time
LC50	0,199 mg/l	fish	ECHA	96 h
EC50	0,48 mg/l	aquatic invertebrates	ECHA	48 h
ErC50	>0,4 mg/l	algae	ECHA	72 h

Aquatic toxicity (chronic)

May cause long-term adverse effects in the aquatic environment.

Endpoint	Value	Species	Source	Exposure time
EC50	>0,39 mg/l	aquatic invertebrates	ECHA	21 d
LOEC	0,14 mg/l	fish	ECHA	42 d
NOEC	0,053 mg/l	fish	ECHA	42 d

12.2 Process of degradability

Not readily biodegradable.

Theoretical Oxygen Demand: 2,977 mg/mg

Theoretical Carbon Dioxide: 2,996 mg/mg

Process	Degradation rate	Time
biotic/abiotic	<10 %	20 d

12.3 Bioaccumulative potential

The substance fulfils the very bioaccumulative criterion.

n-octanol/water (log KOW) 5,1

BCF 598,4

12.4 Mobility in soil

Henry's law constant 0,418 Pa m³/mol at 25 °C

The Organic Carbon normalised adsorption coefficient 4,363

safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

Butylhydroxytoluene ≥99,7 %, pure

article number: BHT324.1



Laboratoriumdiscounter

5. Results of PBT and vPvB assessment

Data are not available.

6. Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

1. Waste treatment methods

This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used.

2. Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

3. Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

SECTION 14: Transport information

1.	UN number	3077
2.	UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
	Hazardous ingredients	Butylated hydroxytoluene
14.3	Transport hazard class(es)	
	Class	9 (miscellaneous dangerous substances and articles) (environmentally hazardous)
4.	Packing group	III (substance presenting low danger)
5.	Environmental hazards	hazardous to the aquatic environment
6.	Special precautions for user	
	Provisions for dangerous goods (ADR) should be complied within the premises.	
7.	Transport in bulk according to Annex II of MARPOL and the IBC Code	
	The cargo is not intended to be carried in bulk.	
8.	Information for each of the UN Model Regulations	
	• Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)	
	UN number	3077
	Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
	Particulars in the transport document	UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (Butylated hydroxytoluene), 9, III, (-)
	Class	9
	Classification code	M7

safety data sheet



according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



Laboratoriumdiscounter

Butylhydroxytoluene ≥99,7 %, pure

article number: BHT324.1

Packing group	III
Danger label(s)	9 + "fish and tree"
	
Environmental hazards	yes (hazardous to the aquatic environment)
Special provisions (SP)	274, 335, 375, 601
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg
Transport category (TC)	3
Tunnel restriction code (TRC)	-
Hazard identification No	90
Emergency Action Code	2Z
• International Maritime Dangerous Goods Code (IMDG)	
UN number	3077
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Particulars in the shipper's declaration	UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (Butylated hydroxytoluene), 9, III
Class	9
Marine pollutant	yes (hazardous to the aquatic environment)
Packing group	III
Danger label(s)	9 + "fish and tree"
	
Special provisions (SP)	274, 335, 966, 967, 969
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg
EmS	F-A, S-F
Stowage category	A
• International Civil Aviation Organization (ICAO-IATA/DGR)	
UN number	3077
Proper shipping name	Environmentally hazardous substance, solid, n.o.s.
Particulars in the shipper's declaration	UN3077, Environmentally hazardous substance, solid, n.o.s., (Butylated hydroxytoluene), 9, III
Class	9

safety data sheet



according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

Butylhydroxytoluene ≥99,7 %, pure

article number: BHT324.1



Laboratoriumdiscounter

Environmental hazards	yes (hazardous to the aquatic environment)
Packing group	III 9 + "fish and tree"
 	
Special provisions (SP)	A97, A158, A179, A197, 274
Excepted quantities (EQ)	E1
Limited quantities (LQ)	30 kg

SECTION 15: Regulatory information

1. Safety, health and environmental regulations/legislation specific for the substance or mixture Relevant provisions of the European Union (EU)

- **Regulation 649/2012/EU concerning the export and import of hazardous chemicals (PIC)**
Not listed.
- **Regulation 1005/2009/EC on substances that deplete the ozone layer (ODS)**
Not listed.
- **Regulation 850/2004/EC on persistent organic pollutants (POP)**
Not listed.
- **List of substances subject to authorisation (REACH, Annex XIV)**
not listed
- **Seveso Directive**

2012/18/EU (Seveso III)

No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the application of lower and upper-tier requirements		Notes
E1	environmental hazards (hazardous to the aquatic environment, cat. 1)	100	200	56)

Notation

56) Hazardous to the Aquatic Environment in category Acute 1 or Chronic 1

Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II

not listed

Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

not listed

safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

Butylhydroxytoluene ≥99,7 %, pure

article number: BHT324.1



Laboratoriumdiscounter

Directive 2000/60/EC establishing a framework for Community action in the field of water policy (WFD)

not listed

National inventories

Substance is listed in the following national inventories:

- EINECS/ELINCS/NLP (Europe)
- REACH (Europe)

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

16.1 Indication of changes (revised safety datasheet)

Section	Former entry (text/value)	Actual entry (text/value)
8.1		•environmental values: change in the listing (table)
14.8	Particulars in the transport document: UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (Butylated hydroxytoluene), 9, III, (E)	Particulars in the transport document: UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (Butylated hydroxytoluene), 9, III, (-)
14.8	Tunnel restriction code (TRC): E	Tunnel restriction code (TRC): -
14.8		•International Civil Aviation Organization (ICAO-IATA/DGR)
14.8		UN number: 3077
14.8		Proper shipping name: Environmentally hazardous substance, solid, n.o.s.
14.8		Particulars in the shipper's declaration: UN3077, Environmentally hazardous substance, solid, n.o.s., (Butylated hydroxytoluene), 9, III
14.8		Class : 9
14.8		Environmental hazards: yes (hazardous to the aquatic environment)
14.8		Packing group: III9 + "fish and tree"
14.8		Packing group: change in the listing (table)
14.8		Special provisions (SP): A97, A158, A179, A197, 274
14.8		Excepted quantities (EQ): E1
14.8		Limited quantities (LQ): 30 kg

safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

Butylhydroxytoluene ≥99,7 %, pure

article number: BHT324.1



Laboratoriumdiscounter

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
BCF	bioconcentration factor
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
CMR	Carcinogenic, Mutagenic or toxic for Reproduction
DGR	Dangerous Goods Regulations (see IATA/DGR)
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
STEL	short-term exposure limit
TWA	time-weighted average
vPvB	very Persistent and very Bioaccumulative
WEL	workplace exposure limit

Key literature references and sources for data

- Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU
- Regulation (EC) No. 1272/2008 (CLP, EUGHS)

safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

Butylhydroxytoluene $\geq 99,7$ %, pure

article number: BHT324.1



Laboratoriumdiscounter

List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H400	very toxic to aquatic life
H410	very toxic to aquatic life with long lasting effects

Disclaimer

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.