

BHT (Butylated Hydroxytoluene)


Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / March 26, 2012 / Rules and Regulation

Revision Date: 08-13-2015
Supersedes: 10-30-2012

1 PRODUCT & COMPANY IDENTIFICATION

Product Name:	BHT	Distributor:	MakingCosmetics.com Inc.
Synonyms:	Butylated Hydroxytoluene; 2,6-di-tert-butyl-4-methyl phenol; 2,6-di-tert-butyl-p-cresol	Address:	10800 231 st Way NE
INCI Name:	Butylated hydroxytoluene		Redmond, WA 98053 (USA)
CAS Number:	128-37-0	Phone / Fax:	425-292-9502 / 425-292-9601
Formula:	C ₁₅ H ₂₄ O	Web:	www.makingcosmetics.com
Product Form:	Liquid		
Product Use:	Cosmetic use	Emergency Telephone Number:	1-800-424-9300 (Chemtrec)

2 HAZARDS IDENTIFICATION

GHS Classification:	Aquatic Acute 1, Aquatic Chronic 1, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3												
GHS Signal Word:	WARNING												
GHS Hazard Pictograms:													
GHS Hazard Statements:	H302: Harmful if swallowed H315: Causes skin irritation H319: Causes serious eye irritation H332: Harmful if inhaled H400: Very toxic to aquatic life H410: Very toxic to aquatic life with long lasting effects												
GHS Precautionary Statements:	P281: Use personal protective equipment as required P273: Avoid release to the environment.												
Potential Health Hazards:	Eyes: Irritant. Inhalation: May be irritant. Skin: May be irritant. Ingestion: May be irritant.												
NFPA Ratings (704):	<table border="0"> <tr> <td style="background-color: #0070C0; color: white;">Health</td> <td style="text-align: center;">1</td> <td>Slight</td> </tr> <tr> <td style="background-color: #FF0000; color: white;">Flammability</td> <td style="text-align: center;">1</td> <td>Slight</td> </tr> <tr> <td style="background-color: #FFFF00; color: black;">Reactivity</td> <td style="text-align: center;">0</td> <td>Minimal</td> </tr> <tr> <td>Specific Hazard</td> <td style="text-align: center;">n/a</td> <td></td> </tr> </table>	Health	1	Slight	Flammability	1	Slight	Reactivity	0	Minimal	Specific Hazard	n/a	
Health	1	Slight											
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Specific Hazard	n/a												

3 COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS No.</u>	<u>Weight %</u>	<u>Molecular Weight</u>
Butylated Hydroxytoluene	128-37-0	>99%	220.34 g/mol

4 FIRST AID MEASURES

Eyes:	In case of eye contact, rinse with plenty of water and seek medical attention if necessary
Inhalation:	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary.
Skin:	Flush with plenty of water and wash using soap.
Ingestion:	Not an expected route of exposure. If swallowed: Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. Get medical attention if necessary.

5 FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:	Combustible material: may burn but does not ignite readily. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Use appropriate media (foam, carbon dioxide, dry chemical) for adjacent fire. Do not use water.
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Special protective equipment & precautions for firefighters: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

Flash Points: CLOSED CUP: >118 °C (244 °F)

Specific hazards arising from the chemical: As the product contains combustible organic ingredients, fire will produce dense black smoke containing hazardous products of combustion (see section 10). In case of incomplete combustion an increased formation of oxides of nitrogen (NOx) is to be expected.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment & emergency procedures: See section 8 for recommendations on the use of personal protective equipment.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not allow materials to contaminate ground water system. Do not flush into surface water or sanitary sewer system. Keep out of waterways. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and material for containment and cleaning up: Use personal protective equipment. Take precautionary measures against static discharges. Avoid dust formation. Take up mechanically and collect in suitable container for disposal. Non-sparking tools should be used. Clean contaminated surface thoroughly. Dispose of all waste and cleanup materials in accordance with regulations.

7 HANDLING & STORAGE

Precautions for safe handling: See section 8 for recommendations on the use of personal protective equipment. Keep container closed when not in use.

Conditions for safe storage, incl. any incompatibilities: Store in cool, dry well ventilated area. Keep away from heat and incompatible materials (see section 10 for incompatibilities).

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Component	Exposure Limits	Basis	Entity
Butylated Hydroxytoluene	TWA: 2 mg/m ³ inhalable fraction and vapor	TLV	ACGIH
	TWA: 10 mg/m ³	REL	NIOSH
	(vacated) TWA: 10 mg/m ³	PEL	OSHA
	TWA: 2 mg/m ³	TWA	Ontario
	TWA: 2 mg/m ³	TWA	Korea & Argentina
	TWA: 10 mg/m ³	TWA	Australia & Mexico
	STEL: 20 mg/m ³	STEL	Mexico
TWA: 2 ppm	TWA	Venezuela	

TWA: Time Weighted Average over 8 hours of work.
 TLV: Threshold Limit Value over 8 hours of work.
 REL: Recommended Exposure Limit
 PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.
 IDLH: Immediately Dangerous to Life or Health
 WEEL: Workplace Environmental Exposure Levels
 CEIL: Ceiling

Engineering measures

It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks. Ensure adequate ventilation, especially in confined area. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

Personal Protection:

Eyes: Safety glasses with side-shields. Molten form: Goggles; Face-shield.

Inhalation: Not needed under normal conditions of use. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.

Body: Long sleeved clothing, impervious gloves, and slip proof shoes may be worn where spills may occur.

Other: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance, Physical State:	Solid crystalline; pellets	Maximum explosion overpressure:	7-9 Pm (bar)
Odor:	Mild	Maximum Rate of Pressure Rise:	800-1300 [dP/dt (bar/s)]
Color:	White	Dust deflagration index (Kst):	200-350 [bar.m/s]
Molecular Weight:	220.34 g/mol	Minimum ignition energy (MIE):	10-25 (mJ)
pH (1% sol. in water)	N/A	Lower explosion limit:	10-20 [M.E.C. (g/m ³)]
Boiling Point:	>265 °C (509 °F)	Solubility:	Practically insoluble in water: 0.4 -1.14 mg/l
Melting Point:	69-70 °C (156-158 °F)	Flammability:	Combustible material: may burn. Does not ignite readily
Flash Point:	>118 °C (244 °F)		
Vapor Pressure:	<0.01 mmHg (@ 20 °C)		
Vapor Density:	7.6		
Lower Explosive Limit:	10-20 [M.E.C. (g/m ³)]		

10 STABILITY AND REACTIVITY

Reactivity:	Product is stable
Chemical Stability:	Product is stable
Hazardous Polymerization:	Will not occur
Conditions to Avoid:	Heat (temperatures above flash point), sparks, ignition points, flames, static electricity.
Incompatible Materials:	Strong acids & bases, oxidizing agents & reducing agents.
Hazardous Decomposition Products:	No known

11 TOXICOLOGICAL INFORMATION

Acute Oral Toxicity:	LD50 oral (rat): >6000 mg/kg
Skin:	LD50 dermal (rat): >2000 mg/kg
Eyes:	Irritating to eyes
Respiratory:	Inhalation of dust in high concentration may cause irritation of respiratory system
Ingestion:	This material is not likely to cause irritation upon ingestion. It is classified as "relatively harmless" by ingestion and considered to be a low ingestion hazard
Carcinogenicity:	Contains no ingredient listed as a carcinogen
Repeated Dose Toxicity:	Repeated oral exposure of laboratory animals (rats and mice) at doses greater than 25 mg/kg/day resulted in growth depression and functional and histological changes to the lung, liver, kidneys, and thyroid.
Germ Cell Mutagenicity:	Not available
Embryotoxicity:	Not available
Specific Target Organ Toxicity:	Eyes, Lungs, Liver, Kidney, Thyroid.
Reproductive Toxicity:	None expected in humans. The only effects on reproduction in rats and mice were lower numbers of litters of ten or more pups at birth at doses of 100 mg/kg/day and above. During pregnancy, BHT had maternal effects on mice above oral doses of 240 mg/kg/day.
Other adverse effects:	May cause nausea, vomiting, gastro-intestinal distress, and narcotic effects if ingested in large doses well above the acceptable daily intake (ADI) of 0.3 mg/kg bw/day
IARC (International Agency for Research on Cancer):	Group 3: Not classifiable as to its carcinogenicity to humans

12 ECOLOGICAL INFORMATION

Ecotoxicity:	Very toxic to aquatic life with long lasting effects.
Toxicity to Algae:	EC50 72h: = 6mg/L (Pseudokirchneriella subcapitata) EC50 72h: >0.42mg/L (Desmodesmus subspicatus)
Toxicity to Fish:	LC50 48h: = 5mg/L (Oryzias latipes)
Toxicity to daphnia and other aquatic invertebrates:	EC50 48h: = 0.48mg/L (Daphnia magna immobilization)
Persistence and Degradability:	Not readily biodegradable
Bioaccumulative Potential:	This product may be accumulated in organisms
Bioconcentration Factor (BCF):	230-2500 [(fish) 56 days] log Pow: 5.1
Mobility in Soil:	No data available
PBT and vPvB Assessment:	No data available
Other Adverse Effects:	Not data available

13 DISPOSAL CONSIDERATIONS

Waste Residues: Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

Product Containers: Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information in section 13 is for the product as shipped. Use and/or alterations to the product may change the characteristics of the material and alter the waste classification and proper disposal methods

14 TRANSPORT INFORMATION

IMDG/IMO

Proper Shipping Name Environmentally Hazardous Substance, Solid, N.O.S. (Butylated Hydroxytoluene)
Hazard class 9
UN/ID No 3077
Packaging Group III
Marine Pollutant Product is marine pollutant according to the criteria set by IMDG/IMO
Description UN3077, Environmentally Hazardous Substance, Solid, N.O.S. (Butylated Hydroxytoluene), 9, III, Marine Pollutant

ICAO/IATA

UN/ID No 3077
Proper Shipping Name Environmentally Hazardous Substance, Solid, N.O.S (Butylated Hydroxytoluene)
Hazard class 9
Packaging group III

DOT

Proper Shipping Name Not regulated

ADR/RID

Proper Shipping Name Environmentally Hazardous Substance, Solid, N.O.S (Butylated Hydroxytoluene)
Hazard class 9
UN/ID No 3077
Packaging group III
Description UN3077, Environmentally Hazardous Substance, Solid, N.O.S. (Butylated Hydroxytoluene), 9, III, Marine Pollutant

TDG (Transportation of Dangerous Goods, Canada): No data available

15 REGULATORY INFORMATION

TSCA Inventory Status: Complies
EINECS/ELINCS: Complies
DSL/NDSL: Complies
PICCS: Complies
ENCS: Complies
IECSC: Complies
AICS: Complies
KECL: Complies
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 No
Sudden Release of Pressure Hazard No
Reactive Hazard No
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)
CERCLA This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability

Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Right-to-Know Regulations Massachusetts, New Jersey, Pennsylvania, & Rhode Island

16 OTHER INFORMATION

Revision Date: 08/13/2015

Compliance: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200

Disclaimer: This 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 other process. Such information is to be the best of the company's knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee of any kind, express or implied, is made as to its accuracy, reliability or completeness and we assume no responsibility for any loss, damage or expense, direct or consequential, arising out of use. It is the user's responsibility to satisfy himself as to the suitability & completeness of such information for his own particular use.