

G.J. CHEMICAL COMPANY, INC. SAFETY DATA SHEET

1. PRODUCT IDENTIFIER

1.1 PRODUCT NAME:-----> **Butylated Hydroxytoluene**

PRODUCT NUMBER(S):----->113700

TRADE NAMES/SYNONYMS:----> BHT, 2, 6-Di-tert-butyl-p-cresol,
Butylhydroxytoluene, BHT, DBPC
2, 6-Di-tert-butyl-4-methylphenol

CAS-No: 128-37-0

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

RECOMMENDED USE: Industrial: Manufacture of substances, Lubricant, Intermediate, Reactive processing aid, Rubber production, Paper industry, Adhesives and sealants, Laboratory Chemicals

USES ADVISED AGAINST: No information available

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Company: **G.J. CHEMICAL CO., INC.**

Address: **40 VERONICA AVENUE
SOMERSET, NJ 08873**

Telephone: **1-973-589-1450**

Fax: **1-973-589-3072**

1.4 Emergency Telephone Number

Emergency Phone: **1-800-424-9300 (CHEMTREC)**

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29CFR 1910 (OSHA HCS)

Acute aquatic toxicity (Category 1), H400

Chronic aquatic toxicity (Category 1), H410

2.2 GHS Label elements, including precautionary statements



Pictogram

GHS09

Signal word

WARNING

Hazard statement(s)

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

Prevention:

P273 Avoid release to the environment.

Response:

P391 Collect spillage.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. INGREDIENTS

3.1 SUBSTANCE:

Ingredient	CAS No.	% by WT. Range	CLASSIFICATION
2, 6 di-tert-Butyl- p-cresol EC-No.204-881-4 Reg.-No. 01-2119555270- 46-XXXX	128-37-0	100	Acute aquatic toxicity (Category 1), H400 Chronic aquatic toxicity (Category 1), H410

3.2 MIXTURE: Not applicable.

4. FIRST-AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES:

Emergency and First Aid Procedures:

INHALATION: Butylated Hydroxytoluene

****FIRST AID- Remove to fresh air. If not breathing give artificial respiration. Keep warm and quiet. Notify Physician.**

EYE CONTACT (Splash): Butylated Hydroxytoluene

****FIRST AID- Immediately flush eyes with water for 15 minutes, holding eyelids apart to ensure flushing. Washing eyes within several**

seconds is essential to achieve maximum effectiveness. Remove contact lenses, if worn, after initial rinse. Take to a physician.

SKIN CONTACT(Splash): Butylated Hydroxytoluene

****FIRST AID- Wash affected area with soap and water for 15 minutes. Remove contaminated clothing and shoes. Consult a physician if irritation persists.**

INGESTION: Butylated Hydroxytoluene

****FIRST AID- Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Loosen tight clothing e.g. tie, collar, belt. Consult a physician or poison control center, treat symptomatically.**

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED INGESTION:

Eye: Causes eye irritation. Irritant;

Skin: Harmful if absorbed through skin. Irritant;

Inhalation: May be harmful if inhaled. Causes irritation of the respiratory tract

Ingestion: Harmful if swallowed.

Chronic: The substance may be toxic to blood, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organ damage, e.g. liver, kidneys, thyroid, adrenal gland.

Medical Conditions Aggravated by Exposure: Skin contact may aggravate an existing dermatitis.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

Specific details on antidote: No recommendation given.

5. FIRE FIGHTING MEASURES

Flash Point: 127°C (260.6°F) Closed Cup

LEL %:N/A

Auto-ignition Temp: 470C (878F)

UEL %:N/A

5.1 SUITABLE EXTINGUISHING MEDIA: Foam--> x CO2--> x Dry Chemical--> x Water-fog--> x Other-->

Unsuitable extinguishing media: Do not use waterjet.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR

MIXTURE: Keep containers tightly closed. Isolate from all sources of ignition. Closed containers may explode when exposed to extreme heat. When heated to decomposition it emits toxic fumes. As with most organic solids, fire is possible at elevated temperatures.

CONDITIONS OF FLAMMABILITY: Not flammable or combustible.

HAZARDOUS COMBUSTION PRODUCTS: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, carbon oxides and other unidentified organic compounds evolve when this material undergoes combustion.

5.3 ADVICE FOR FIREFIGHTERS: Shut off source. Water fog may be used to cool closed containers to prevent pressure build up and possible auto ignition or explosion in the presence of static discharge or mechanical impact. Wear self-contained breathing apparatus for confined spaces and where there is exposure to vapors. Use full fire-fighting protective clothing.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Eliminate ignition sources in the vicinity of the spill or released vapor. Immediately evacuate all nonessential people. Verify that responders are properly trained and wearing appropriate respiratory equipment and fire resistant protective clothing during cleanup operations.

6.2 ENVIRONMENTAL PRECAUTIONS:

Keep out of water sources, drains and sewers. Do not flush into surface water or sanitary sewer system

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:

Methods for cleanup and containment:

Use explosion proof equipment. Shut off valves, contain spill. Finish cleaning by spreading water on the contaminated surface and allow it to evacuate through the sanitary sewer. Minimize breathing vapors and skin contact, ventilate confined areas, open all windows and doors.

Methods for disposal:

For spills: Use appropriate tools to put spilled solid in a convenient waste disposal container. Assure conformity with applicable government regulations.

6.4 REFERENCE TO OTHER SECTIONS: See Sections 8 and 13.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING: Avoid breathing dust in top of shipping container. Avoid formation of dust and aerosols. Use with adequate ventilation. Avoid contact with eyes, skin and clothing. If ingested, seek medical advice immediately and show the container label. Keep away from incompatibles such as oxidizing agents. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Avoid

work practices that may release volatile components in the atmosphere. Avoid contaminating soil or releasing material into sewage and drainage systems.

Advice on general occupational hygiene:

Wash hands before breaks and after work. Keep away from food, drink and animal feeding stuffs. When using do not smoke.

STATIC HAZARD: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not be sufficient.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

Follow maximum allowed pile heights specified in the BOCA codes or the NFPA manual. Local fire authorities should be notified for storage of this material in any quantity. Local permits are required for storage in warehouse quantities. Recommended storage temperature: 15 - 25°C. Store large quantities only in cool, dry areas in buildings designed to comply with OSHA 1910.106. Keep containers tight and upright to prevent leakage. Do not contact with oxidizing materials. Keep containers closed when not in use. Do not take internally. Storage class (TRGS 510): 13: Non Combustible Solids

CONTAINER WARNINGS: Containers should be Bonded and Grounded when pouring. Avoid free fall of liquid in excess of a few inches. Empty containers release residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, or expose such containers to heat, sparks, static electricity or other sources of ignition. Do not attempt to clean.

7.3 SPECIFIC END USES: Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROL (PERSONAL PROTECTION)

8.1 CONTROL PARAMETERS:

Ingredient	CAS No. Range	% by WT.	Exposure Limits
2, 6-di-tert-Butyl-p-cresol	128-37-0	100	2mg/m3 TWA (ACGIH)
	EC-No.204-881-4		10mg/m3 TWA (OSHA)
	Reg.-No. 01-2119555270- 46-XXXX		10mg/m3 TWA (NIOSH)

Key: (PEL) = Permissible Exposure Limit OSHA
(TLV) = Threshold Limit Value OSHA & ACGIH
(STEL) = Short Term Exposure Limit ACGIH
(TWA) = Time Weighted Average
CAS = Chemical Abstracts Registry Number
IDLH = Immediate Danger to Life and Health
N.E. = Not Established

8.2 EXPOSURE CONTROLS

EXPOSURE GUIDELINES: Consider the potential hazards of this material (Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended.

ENGINEERING CONTROLS: Provide general dilution or local exhaust ventilation in volume and pattern to keep concentrations within permitted exposure limits. All areas should be ventilated in accordance with OSHA Regulation 29 CFR Part 1910. Explosion proof motors should be used in mechanical ventilation.

RESPIRATORY PROTECTION: The specific respirator selected must be based on contamination levels found in the work place, must not exceed the working limits of the respirator and be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH-MSHA):

For known vapor concentrations use a NIOSH/MSHA approved Dust respirator type N-95. For unknown dust concentrations or in a confined space, wear a self-contained supplied air respirator.

BODY CLOTHING: Use chemical resistant apron or other impervious clothing. Remove and wash contaminated clothing before reuse. Users should determine acceptable performance characteristics of protective clothing.

SKIN PROTECTION: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

HYGIENE: Use good personal hygiene practices, wash hands before eating, drinking, smoking or using toilet facilities.

EYE/FACE PROTECTION> Use safety eyewear with splash guards or face shield.
A safety shower and eyewash should be easily accessible to the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

2, 6-Di-tert-butyl-p-cresol 128-37-0

Appearance-----> Crystalline solid.
Color-----> White to light yellow
Odor-----> Slight phenolic odor.
Odor Threshold-----> No data available
pH-----> No data available
Molecular weight-----> 220.35amu
Melting/Freezing Point-----> 69 - 70°C (156 - 158°F)
Boiling Range (°F)-----> 265°C (509°F)
Specific Gravity-----> 1.048@20°C
Vapor Pressure-----> 0.01mmHg@20°C (68°F)
Vapor Density (air=1)-----> 7.6
Water solubility-----> 0.0004 g/l at 20°C - slightly soluble
Partition Coefficient N-Octanol/water-----> log Pow: 5.1
Evaporation Rate (Butyl Acetate=1)-----> No data available
Flash Point-----> 127.0°C (260.6°F) - closed cup
Upper Flammability Limit-----> No data available
Lower Flammability Limit-----> No data available
Auto-ignition Temperature-----> 470.0°C (878.0°F)
Decomposition Temperature-----> No data available
Viscosity-----> 3.47 mm²/s at 80 °C (176°F)
Explosive Properties-----> No data available
Oxidizing Properties-----> No data available

9.2 OTHER INFORMATION:

Solubility-----> Soluble in methanol, acetone, toluene, MEK, ethanol, and hydrocarbons. Insoluble in cold water.

10. STABILITY AND REACTIVITY INFORMATION

10.1 REACTIVITY: No data available.

10.2 CHEMICAL STABILITY: Unstable () Stable (X)

10.3 POSSIBILITY OF HAZARDOUS REACTIONS: No data available.

HAZARDOUS POLYMERIZATION: May occur () Will not occur (X)

10.4 CONDITIONS TO AVOID: --> Heat, Sparks, Pilot Lights, Static Electricity, and Open Flame.

10.5 INCOMPATIBLE MATERIALS --> Acid chlorides, Acid anhydrides, Oxidizing agents, Bases, Brass, Copper

10.6 HAZARDOUS DECOMPOSITION PRODUCTS: Fumes, Smoke, Carbon Oxides.

11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

Routes of Entry: Inhalation--> x Skin--> x Ingestion--> x

ACUTE HEALTH EFFECTS:

Effects of overexposure:

Eye> Causes eye irritation. Irritant;

Skin> Harmful if absorbed through skin. Irritant;

Inhalation> May be harmful if inhaled. Causes irritation of the respiratory tract

Ingestion> Harmful if swallowed.

Chronic: The substance may be toxic to blood, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organ damage, e.g. liver, kidneys, thyroid, adrenal gland.

Medical Conditions Aggravated by Exposure> Skin contact may aggravate an existing dermatitis.

ACUTE TOXICITY:

The effects of overexposure shown in Section III are based on acute toxicity profiles. Typical values are:

Ingredient	Oral LD50(Rat)	Skin LD50(Rat)	Inhalation LC50	
2,6-di-tert-Butyl-p-cresol	>6000mg/kg	>2000mg/kg		

SKIN CORROSION/IRRITATION: No data available.

SERIOUS EYE DAMAGE/EYE IRRITATION: Eyes - Rabbit Result: No eye irritation

RESPIRATORY OR SKIN SENSITIZATION: No data available.

MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. Ames test *S. typhimurium* Result: negative

CARCINOGEN STATUS: IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (2,6-di-tert-Butyl-p-cresol)

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

REPRODUCTIVE TOXICITY: No data available

Specific target organ toxicity - single exposure (Globally Harmonized System)
no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)
no data available

ASPIRATION HAZARD: No data available

ADDITIONAL DATA: Repeated dose toxicity - Rat - male and female - Oral - No observed adverse effect level - 25 mg/kg

RTECS: GO7875000

12. ECOLOGICAL INFORMATION

DANGEROUS TO AQUATIC LIFE IN HIGH CONCENTRATIONS

May be dangerous if it enters water intakes.

Notify local health and pollution control officials.

Notify operators of nearby water intakes.

AQUATIC TOXICITY:

Toxicity to fish:

LC50 - Oryzias latipes - 5.3 mg/l - 48 h

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia pulex (Water flea) - 1.44 mg/l - 48 h

Toxicity to bacteria:

EC50 - Protozoa - 1.7 mg/l - 24 h Growth inhibition

12.2 PERSISTENCE AND DEGRADABILITY:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the products of Biodegradation: The products of biodegradation are less toxic than the product itself.

12.3 BIOACCUMULATIVE POTENTIAL: log Pow 5.1

Biological Oxygen Demand (BOD): No data available

12.4 MOBILITY IN SOIL:

12.5 RESULTS OF PBT AND vPvB :

PBT assessment results: This substance is not classified as PBT or vPvB.

12.6 OTHER ADVERSE EFFECTS: Very toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS: Hazard characteristic and regulatory waste stream classification can change with product use. Accordingly it is the responsibility of the user to determine the proper storage, transportation, treatment and or disposal methodologies for spent materials and residues at time of disposition. Dispose in accordance with all applicable disposal regulations. Incinerate under controlled conditions in a permitted facility.

CONTAMINATED PACKAGING: Dispose of as unused product.

DISPOSAL MUST BE IN ACCORDANCE WITH STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE, 48 CFR 262

14. TRANSPORT INFORMATION

Land Transport (DOT)

14.1 USDOT ID Number-----> N/A

14.2 USDOT Shipping Name-----> Not DOT Regulated

- 14.3 USDOT Hazard Classification-----> N/A
- USDOT Label Codes-----> N/A
- 14.4 USDOT Package Code-----> N/A
- 14.5 Environmental hazard-----> No
- 14.6 Special precautions for user-----> None

Sea Transport (IMDG)

- 14.1 UN Number:-----> UN3077
- 14.2 Proper Shipping Name-----> ENVIRONMENTALLY HAZARDOUS
SUBSTANCE, SOLID, N.O.S. (2, 6-di-tert-Butyl-p-cresol)
- 14.3 Hazard Class:-----> 9
- USDOT Label Codes-----> 9
- 14.4 Packing Group:-----> III
- 14.5 Marine Pollutant-----> Yes
- EMS-No.-----> F-A, S-F

Air Transport (IATA)

- 14.1 UN Number:-----> 3077
- 14.2 Proper Shipping Name:-----> Environmentally hazardous substance,
solid, n.o.s. (2, 6-di-tert-Butyl-p-cresol)
- 14.3 Hazard Class:-----> 9
- USDOT Label Codes-----> 9
- 14.4 Packing Group:-----> III
- 14.5 Environmental hazard-----> Yes

Further information EHS-Mark required (IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

15. REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE:

SARA TITLE III (Superfund Amendment and Reauthorization Act)

SECTION 302 AND 304: Extremely Hazardous Substance List (40 CFR 355) - Not Listed

SECTION 313: Toxic Chemicals Listing (40 CFR 372.65) - Not Listed

SECTION 311/312: Hazard Categorization (40 CFR 370) – No SARA Hazards

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)

SECTION 102(A) Hazardous Substances (40 CFR 302.4) - Not Listed

Reportable Quantity - None
SECTION 101(14) Reportable Quantity: None

Massachusetts Right to Know Components
2, 6-di-tert-Butyl-p-cresol CAS-No.128-37-0

Pennsylvania Right to Know Components
2, 6-di-tert-Butyl-p-cresol CAS-No.128-37-0

New Jersey Right to Know Components
2, 6-di-tert-Butyl-p-cresol CAS-No.128-37-0

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

TSCA (Toxic Substance Control Act)
2, 6-di-tert-Butyl-p-cresol CAS-No.128-37-0 is listed on the TSCA Inventory.

International Inventories:

<u>Country or Region</u>	<u>Inventory Name</u>	<u>On inventory yes/no</u>
<u>Australia</u>	Australian Inventory of Chemical Substances (AICS)	Yes
<u>Canada</u>	Domestic Substances List (DSL)	Yes
<u>Canada</u>	Non-Domestic Substances List (NDSL)	No
<u>China</u>	Inventory of Existing Chemical Substances in China (IECSC)	Yes
<u>Europe</u>	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
<u>Europe</u>	European List of Notified Chemical Substances (ELINCS)	No
<u>Japan</u>	Inventory of Existing and New Chemical Substances (ENCS)	Yes
<u>Japan</u>	Industrial Safety & Health Law Inventory (ISHL)	Yes
<u>Korea</u>	Existing Chemicals List (ECL)	Yes
<u>Mexico</u>	National Inventory of Chemical Substances (INSQ)	Yes
<u>New Zealand</u>	New Zealand Inventory	Yes
<u>Philippines</u>	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
<u>Switzerland</u>	Inventory of Notified New Substances (CHINV)	Yes
<u>Taiwan</u>	National Existing Chemical Inventory (NECI)	Yes
<u>United States & Puerto Rico</u>	Toxic Substances Control Act Inventory	Yes

15.2 CHEMICAL SAFETY ASSESSMENT: A chemical safety assessment has been carried out for this substance.

16. OTHER INFORMATION:

HMIS (Hazardous Materials Identification System)

Hazard Rating:

4-Extreme

3-High

2-Moderate
1-Slight
0-Insignificant
Toxicity-

NFPA RATINGS (SCALE 0-4): Health=2 Fire=1 Reactivity=0
HMIS RATINGS (SCALE 0-4): Health=0 Fire=1 Reactivity=0 PPE=E

Hazard statement(s) from Section 2 and 3:
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Date of preparation-----> October 7, 2011
Revision Number-----> 1.3
Revision Content-----> General update all sections
Revision Date-----> October 09, 2018
Prepared by----->T.G. Fenstermaker, Jr.

Acronyms:

VACGIH - American Conference of Governmental Industrial Hygienists
AIHA - American Industrial Hygiene Association
ANSI - American Nation Standards Institute
API - American Petroleum Institute
CERCLA - Comprehensive Emergency Response, Compensation, and Liability Act
DOT - U.S. Department of Transportation
EC-50 - Effective Concentration
EPA - U.S. Environmental Protection Agency
HMIS - Hazardous Materials Information System
IARC - International Agency For Research On Cancer
LD-50 - Lethal Dose
MAK - Germany Maximum Concentration Values
MSHA - Mine Safety and Health Administration
NFPA - National Fire Protection Association
NIOSH - National Institute of Occupational Safety and Health
NOIC - Notice of Intended Change (Proposed change to ACGIH TLV)
NTP - National Toxicology Program
OPA - Oil Pollution Act of 1990
OSHA - U.S. Occupational Safety & Health Administration
PEL - Permissible Exposure Limit (OSHA)
RCRA - Resource Conservation and Recovery Act
REL - Recommended Exposure Limit (NIOSH)
SARA - Superfund Amendments and Reauthorization Act of 1986 Title III
SCBA - Self-Contained Breathing Apparatus
STEL - Short-Term Exposure Limit (generally 15 minutes)
TLV - Threshold Limit Value
TSCA - Toxic Substances Control Act
TWA - Time Weighted Average (8hr.)
WHMIS - Canadian Workplace Hazardous Materials Information System

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