



Safety Data Sheet (SDS)

Revision 1 / Review Date: 02/24/16

1. Chemical Product and Company Identification

Product Name:	AO-2246
Distributed By:	HB Chemical 1665 Enterprise Parkway Twinsburg Oh 44087 Phone - 330-920-8023
SDS Prepared By (w Suppliers Input):	HB Chemical
Chemical Name / Family:	2,2'-methylene-bis-(6-t-butyl-p-cresol), Phenolic antioxidant
Common Name:	2246 accelerator, 2,2'-Methylenebis(6-tert-butyl-4 methylphenol), BPH
Molecular Formula:	C23H32O2
Molecular Weight via GPC, Mn:	340.5
Product Use:	Accelerators
OSHA Status:	Not hazardous
CAS No:	119-47-1
EC No:	204-327-1

For emergency health, safety, and environmental information, calls 330-920-8023

For emergency transportation information, in the United States: call CHEMTREC at 800-424-9300

2. Hazard(s) Identification

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

Reproductive toxicity (Category 2), H361

Chronic aquatic toxicity (Category 4), H413

Pictograms:



Signal Word:

Warning

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Eye irritation (Category 2)

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Irritating to eyes



Pictograms:

Signal Word:

Warning

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<u>Primary Routes of Entry:</u>	Eye, Skin, Inhalation and Ingestion.
<u>Medical Conditions Generally Aggravated by Exposure:</u>	None reported for this product as a whole., May aggravate an existing dermatitis, eye condition, respiratory disorder or other allergic reactions due to mechanical irritation.
<u>Emergency Overview:</u>	White powder. Which may cause allergic skin and respiratory reactions. May cause eye and skin irritation. Not known as an acute health Hazard. May have long term adverse effects in the aquatic environment. Ground containers and equipment before transferring to avoid static sparks. May form explosive dust-air mixtures. Sudden reaction and fire may result when mixed with oxidizing agents. Irritating gases/fumes may be given off during burning or thermal decomposition. This product may form combustible dust-air mixtures.
<u>Acute Effects of Exposure:</u>	This product may cause irritation to the eyes and skin. Symptoms of eye irritation include redness, tearing and pain. Symptoms of skin irritation may include redness of the affected area. Gases and fumes evolved during thermal processing or decomposition of this material may cause irritation to the upper respiratory tract. Irritation of the respiratory tract may result in discomfort, and coughing.
<u>Chronic Effects of Exposure:</u>	Repeated and prolonged contact with eyes may cause conjunctivitis.
<u>Carcinogenic:</u>	Not considered a carcinogenic to the NTP, IARC and OSHA.
<u>Risk Statement:</u>	R36:Irritating to the eyes.
<u>Safety Statement:</u>	S26:In case of contact with eyes, rinse immediately with plenty of water and seek medical advice . S36:Wear suitable protective clothing .
<u>Hazard statement(s):</u>	H303 Maybe harmful if swallowed H315 Causes skin irritation. H319 Causes serious eye irritation H335 May cause respiratory irritation. H361 Suspected of damaging fertility or the unborn child.
<u>Precautionary statement(s):</u>	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P273 Avoid release to the environment. P281 Use personal protective equipment as required. P305+351+338 Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308 + P313 IF exposed or concerned: Get medical advice/attention. P405 Store locked up.

	P501 Dispose of contents/ container to an approved waste disposal plant.
<u>Health Hazards:</u>	This product may irritate the eyes, skin, nasal passages and gastrointestinal tract
<u>Eye Contact:</u>	May cause eye irritation. May cause watering, redness and stinging sensation.
<u>Skin Contact:</u>	May cause skin irritation. May cause itching and redness. Prolonged or repeated skin contact may cause burns.
<u>Ingestion:</u>	Ingestion may cause gastrointestinal irritation, diarrhea, nausea and vomiting.
<u>Inhalation:</u>	Can be irritating to the eyes, nose and respiratory tract following prolonged exposure.
<u>HMIS Hazard Ratings:</u>	Health- 2, Flammability - 2, Reactivity – 0, Protective-A
<u>HMIS limitation statement:</u>	The HMIS hazard ratings numbers are meant to give a quick indication of the relative hazards associated with the product. All of the information contained in the SDS should be consulted to assist with the safe handling of this material.

3. Composition / Information on Ingredients

Weight Percent / Typical	Component Identity	CAS Registry Number
100%	2,2'-methylene-bis-(6-t-butyl-p-cresol)	119-47-1

4. First Aid Measures

<u>Inhalation:</u>	Remove to fresh air; give artificial respiration or oxygen if necessary.
<u>Eyes:</u>	Flush eyes with water for 15 minutes. Call a physician if irritation develops.
<u>Skin:</u>	Prolonged or repeated skin contact may cause irritation. Remove contaminated clothing and wash skin with soap and water. If in contact with hot product, treat as a burn.
<u>Ingestion:</u>	Do not induce vomiting. Give 2 glasses of water (never give anything to a unconscious person. Call a physician. If victim does vomit keep head below waist to prevent vomit from entering the lungs.

5. Fire-Fighting Measures

Suitable Extinguishing Media:

Use Chemical foam, CO₂, Dry Chemical, water fog.

Special Fire Fighting Procedures:

Full eye protection and protective clothing are required for all indoor/outdoor fires and spills. Evacuate non-emergency personnel to a safe area. Full emergency equipment with self-contained breathing apparatus and full protective clothing should be worn by firefighters. Use cold water spray to cool fire exposed containers. During a fire, irritating and toxic gases may be generated by thermal decomposition or combustion.

Hazardous Combustion Products:

This product will decompose under extreme temperatures forming oxides of carbon as well as Aromatic hydrocarbons and nitrogen oxides.

Unusual fire and explosion hazards:

Dusts at sufficient concentrations can form explosive mixtures with air. Irritating or toxic gases may be generated from decomposition/combustion products. Under low oxygen conditions, carbon monoxide may be produced. No known fire or explosion hazards are associated with this material.

6. Accidental Release Measures

Steps to be taken in case material is spilled:

Wear appropriate protective clothing, gloves and equipment. Eliminate all sources of ignition. Contain spill. Transfer to secure containers and dispose of according to local and state regulations. Thought should always be given to collecting the material in such a manner that it could be recycled. Clean/scrub affected area with detergent. Prevent run-off into sewers or natural waterways. Spills in excess of the RQ must be reported to the local emergency response organizations.

Environmental Disposal Information:

Major spills should also be reported to the National Response Center. Spills with potential to contaminate coastal waterways must be reported to the U.S. Coast Guard (800-424-8802).

Waste Disposal:

All containers should be effectively labeled to facilitate the appropriate disposal or reclaim.

7. Handling and Storage:

Precautions to be taken in handling:

Keep away from heat, sparks and flames. Store in a dry place away from excessive heat. Vent storage bins, conveyors, dust collectors, ground handling equipment, etc. All handling equipment should be properly grounded to prevent the build-up of electrostatic charges. Storage area should be equipped with sprinkler system. Handle in accordance with good industrial hygiene and safety practices.

<u>Storage:</u>	Store in sealed containers in dry, ambient temperature conditions (less than 110°F). Perform drum and tote filling in well-ventilated area wearing protective eye shields and clothing.
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8. Exposure Controls / Personal Protection

<u>Respiratory Protection:</u>	Respirators should be worn with airborne dust and selected when TWA exceeded. Under normal handling conditions, at room temperature using good industrial hygiene practices, a respirator is not required. Air purifying respirator equipped with a dust and mist filter cartridge if fumes or dust are near or exceed the exposure limits listed in Section 2. An organic vapor cartridge should be used if ventilation is not sufficient to control fumes released during thermal processing. Observe OSHA regulations for respirator use (29 CFR 1910.134.)
<u>Ventilation:</u>	Use only where sufficient ventilation exists to keep exposure levels of fumes and dust below recommended levels.
<u>Hand Protection:</u>	Rubber, Neoprene if splashing is a problem.
<u>Eye Protection:</u>	Safety glasses with side shields or goggles are recommended.
<u>Skin and Body Protection:</u>	Permeation resistant gloves (neoprene, nitrile, or PVC) and impervious clothing (long sleeve shirts) are recommended.
<u>Other Precautions:</u>	Emergency showers and eye wash stations should be available. Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees on the safe use and handling of this product.
<u>Decontamination Facilities:</u>	Consideration to properly engineered explosion suppression should be considered when large amounts of product are handled. There should be a shower facility and eyewash in the building where this product is being stored and handled. Exercise good chemical handling practice.

9. Physical and Chemical Properties

<u>Physical Form:</u>	Solid – Crystalline Powder
<u>Appearance & Odor:</u>	White / Slight
<u>Specific Gravity:</u>	@25°C = 1.2
<u>Density:</u>	1.04 g/cm ³
<u>Softening Point, R&B:</u>	Not available
<u>Solubility in Water:</u>	<0.01 g/l
<u>Melting Point:</u>	120-132C
<u>Flash Point, TAG CC F:</u>	181.20- 198C
<u>Percent Volatiles (by weight):</u>	Not available
<u>Evaporation Rate (Water ~ 1):</u>	< 1 (butyl acetate=1)
<u>Vapor Pressure (mm Hg):</u>	0.00013 hPa @50C

<u>Vapor Density (Air ~ 1):</u>	7.6 (air = 1)
<u>Boiling Point (°F) Initial:</u>	365 F (185C)
<u>Auto ignition Temperature, °C:</u>	355C
<u>Flammable Limits, %(V):</u>	Not available

10. Stability and Reactivity

<u>Stability:</u>	This product is stable under normal conditions.
<u>Incompatibility (Materials to Avoid):</u>	Material reacts with strong oxidizing agents and bases.
<u>Conditions to Avoid:</u>	Keep away from extreme heat.
<u>Hazardous Polymerization:</u>	Hazardous polymerization will not occur.
<u>Decomposition Products:</u>	Oxides of carbon.

11. Toxicological Information

This material is not listed as a carcinogen or potential carcinogen by NTP, IARC, or OSHA.

<u>Mutagenic Effects:</u>	Non-mutagenic for mammals
Acute toxicity	
<u>Oral:</u>	LD50 Oral - mouse - 11.000 mg/kg Acute Oral (Rat) >2000 mg/kg (LD50)
<u>Acute Dermal:</u>	(Rabbit) ND mg/kg (LD50) Dust causes irritation to the eyes, skin and mucous membranes and may lead to toxic oedimas.

12. Ecological Information

<u>Toxicity to Fish:</u>	LC50 (Dose >500mg/l) for 48h Orizias latipes
<u>BOD and COD:</u>	Not available
<u>Biodegradability:</u>	0% (testing period 28 d)
<u>Products of Biodegradation:</u>	No likely short term hazards of degradation however, potential long term may arise. May cause adverse effect in Aquatic life. Do not flush into surface water or sewer systems.

13. Disposal Considerations

Incineration by a permitted hazardous waste facility in accordance with all regulatory requirements is the preferred method of disposal. Empty containers can be rinsed with a suitable solvent/surfactant and steamed to remove residual product and fumes before disposal or reuse in accordance with applicable regulations.

14. Transport Information

<u>D.O.T. Shipping Name:</u>	Not restricted.
<u>Canada Transport Hazards Goods:</u>	Not restricted.
<u>Air - ICAO (international Civil Aviation Organization):</u>	Not restricted.
<u>Sea - IMDG (International Maritime Dangerous Goods):</u>	Not regulated in non-bulk packaging
<u>European Transportation:</u>	ADR/RID HAZ. CLASS: Not regulated.

15. Regulatory Information

<u>OSHA:</u>	Not Determined
<u>SARA TITLE III: - 311/312 CATEGORIES:</u>	Not listed.
<u>SARA TITLE III - 313 Reportable ingredients:</u>	None
<u>SARA 311/312 Hazards:</u>	Chronic Health Hazard
<u>CERCLA RQ:</u>	Not applicable.
<u>TSCA REGULATORY:</u>	All intentional ingredients are listed in the TSCA Inventory.
<u>CANADA WHMIS HAZARD SYMBOL AND CLASS:</u>	Not Regulated
<u>CANADA INGREDIENT DISCLOSURE LIST:</u>	Does not contain any ingredients on the IDL. All intentional ingredients are on the DSL.
<u>International:</u>	EU, Canada, AICS (Australia), IESCS (China), Japan, Korea: Listed or exempt
<u>Massachusetts Right To Know Components:</u>	No components are subject to the Massachusetts Right to Know Act.
<u>Pennsylvania Right To Know Components:</u>	6,6'-Di-tert-butyl-2,2'-methylenedi-p-cresol, CAS-No. 119-47-1
<u>New Jersey Right To Know Components:</u>	6,6'-Di-tert-butyl-2,2'-methylenedi-p-cresol, CAS-No. 119-47-1
<u>California Prop. 65 Components:</u>	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. Other Information

The above information has been compiled from what we believe to be credible sources. To our knowledge the information is accurate and reliable, however, it is not guaranteed. Any recommendations issued by HB Chemical personnel or literature is derived from experience and by no means should be taken as fact or construed as a recommendation to violate of any law, regulation or patent. It is the users responsibility to determine the suitability of any HB supplied material in their application. The individual conditions of each customer are well outside of our control and we cannot be held liable for its functionality and use. Please contact our office should you need specific information beyond what is supplied above. As with all Chemical usage safety precautions beyond the stated are highly recommended.