Safety Data Sheet (SDS)

Revision / Review Date: 9/21/15

1. Chemical Product and Company Identification

Product Name:	AO 1010
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:	Not available
Molecular Formula:	Not available
Molecular Weight via GPC, Mn:	Not available
Product Use:	Not available
OSHA Status:	Not available
CAS No:	6683-19-8

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

Classification of Danger:	General Solid Chemical
Path of Intrusion:	Inhale, swallow or skin contact
Danger to Health:	This chemical has very low toxicity. Long term test in the ratio of 116mg/kg on white mice did not reveal any danger to cause cancer, neither any effect on offspring (LD50≥5000mg/Kg). The suggested dosage of this chemical is 0.1%~0.5% (varies according to different resins to be processed). Maximum dosage in food packaging ≤0.5%.
Danger to Environment:	Long-term effect on environment has not been evaluated.
Danger of Explosion:	Flash Point: 297℃. Spontaneous Combustion Point: > 350℃.Powder of the product may mix with air or oxidant substance to create explosive mixture. Therefore it should be insulated from fire. Any manufacturing equipment that contacts this product should have ground connection to prevent static electricity.
Warning:	Not available.
Signs and Symptoms of Exposure:	Not available.
Primary Routes of Entry:	Eyes and skin.

Medical Conditions Generally Aggravated by Exposure:	Not available.
Eye Contact:	May cause slight irritation to eyes.
Skin Contact:	No allergy to skin if contacted.
Ingestion:	Not available.
Inhalation:	Not available.
HMIS Hazard Ratings:	Not available.
HMIS limitation statement:	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.
Principal Hazardous Components:	Not available.

3. Composition / Information on Ingredients

Weight Percent / Typical	Component Identity	CAS Registry Number
100%	Tetrakis [methylene-3- (3,5 -di-tert - butyl -4- hydroxyphenyl- propionate)] methane	6683-19-8

4. First Aid Measures

Inhalation:	Remove to fresh air and give artificial respiration if not breathing. If breathing is difficult, give oxygen and get immediate medical attention.
Eyes:	Use large amount of water to wash for 15 minutes. Give medical treatment if there is irritation.
Skin:	Use large amount of water and soap to wash the contaminated section. Send to hospital timely for further treatment on cases where there is rash.
Ingestion:	Feed 2-3 cups of water and induce vomiting cautiously. Do not feed anything else to patients who are in coma and send to hospital timely.

5. Fire-Fighting Measures

Dangerous Quality:	The product should not be heated. Avoid contact with live fire or sparkles. The powder of the product can mix with air of oxidant substance to create explosive mixtures.
Harmful Substances Resulted From Burning:	Carbon monoxide, carbon dioxide, Aromatic compounds, micromolecular carbohydrate compounds.

Fire Extinguishing Methods and Chemicals:	Enter the scene from the wind-ward side. Do not inhale fume. Fire extinguishing chemicals usable are: chemical powder, sand, phosphorus dioxide, foam, and spray.
Precautions:	When there is excessive fume, wear masks and other fire extinguishing equipment's available.

6. Accidental Release Measures

Emergency Treatment:	Sweep the chemical or vacuum it. Put it in a special container for recycling.
Treatment:	This chemical is not poisonous waste, and will not pose any danger to human if spilled. Long time effect on environment has not been evaluated. Suggested treatment is to incinerate in a stove for chemical waste. It can also be treated in other ways permitted by the local regulations.

7. Handling and Storage:

Operation Precautions:	Before this chemical is packed or used, the workers should wear functional dust masks, and special protective uniforms (long pants and long sleeve shirts), chemical anti-erosion gloves. Keep the work place well ventilated, free of dust, live fire, or sparkles. Change clothes after work.
Storage Precautions:	This chemical should be stored in ventilated, and cool chemical warehouses. Keep the packing intact so that it will not be contaminated by dust or decomposed by humidity (in order to avoid dust contamination or degradation due to moisture).

8. Exposure Controls / Personal Protection

Maximum Allowed Concentration:	The leakage of this chemical does not pose immediate danger to human. Small amount inhaled is not dangerous either. But the concentration in the air should be controlled below 10 mg/m3 (within 8 hours).
Engineering Controls:	Improve ventilation, such as fans, to make sure that the concentration of the powder is lower than 10 mg/m3.
Respiratory Protection:	Wear anti-dust masks or respirators, when working in places where there is chemical powder.
Ventilation:	Provide adequate ventilation.
Hand Protection:	Wear anti-erosion gloves.
Eye Protection:	Wear anti-chemical goggles or masks.

Skin and Body Protection:	Wear special protective uniform (long pants, long sleeve shirts).
Other Protection:	Eat or drink after shower and change.

9. Physical and Chemical Properties

Physical Form:	Crystal powder or granule
Appearance & Odor:	White / Odorless
Taste:	Tasteless
Ash Content:	≤0.10%
Volatility:	≤0.50%
Melting Point:	110.0-125.0℃
Relative Density:	(Water = 1)1.1-1.2
Specific Gravity:	Not available.
Softening Point, R&B:	Not available.
Solubility:	Soluble in benzene, acetone and chloroform, sparingly soluble in alcohol, insoluble in water. Good extraction resistance in hot water.
Flash Point, TAG CC F:	297℃
Ignition temperature:	410℃
PH:	5.89 (20~25℃, 1% water suspension)
Steam pressure:	1.3×10-10Pa
Heat weight loss point:	> 330℃
Pile up density:	0.4-0.6g/cm3
Percent Volatiles (by weight):	Not available.
Evaporation Rate (Water ~ I):	Not available.
Vapor Pressure (mm Hg):	Not available.
Vapor Density (Air ~ I):	Not available.
Boiling Point (°F) Initial:	Not applicable
Auto ignition Temperature, °C:	Not available.
Flammable Limits, %(V):	Not available.

10. Stability and Reactivity

Stability:	This product is stable under normal conditions.
Incompatibility (Materials to Avoid):	Strong acid, strong oxidant
Conditions to Avoid:	None known.
Hazardous Polymerization:	Hazardous polymerization will not occur.
Prohibited Environment:	Heating, humidity, sparkle or live fire.
Decomposition Products:	No decomposition expected under normal storage condition.

11. Toxicological Information

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

Acute Toxicity:	LD50 ≥ 5000mg/kg (white mice). This chemical is low in poisonousness.
Irritation:	May cause slight irritation to eyes. No allergy to skin if contacted, except for very rare cases where there is relevant history.
Carcinogenicity:	Long term feeding of such chemical according to 100mg/kg dosage against weight daily on white mouse does not reveal any carcinogenicity. No effect on offspring.

12. Ecological Information

Toxicity to Fish:	LC50: > 100 ppm (Zebra fish)
Toxicity to Invertebrates:	EC50: > 86 ppm 24 hour (Daphnia magna)
Toxicity to Algae:	EC50: > 100 ppm 72 hour (Green algae)
Biodegradability (28 d):	5 %, not readily biodegradable (OECD 301 B); 45 %, eliminable (OECD 303 A)
Bioconcentration Factor (BCF):	< 2.3 (OECD 305C)

13. Disposal Considerations

Nature of Disposal:	This chemical is not hazardous.
Method of Disposal:	Destroy by fire in an incinerator. And decompose the packaging. Recycling of the packaging is prohibited. Disposal treatment should abide by the local laws.

14. Transport Information

D.O.T. Shipping Name:	Free.
Air - ICAO (international Civil Aviation Organization):	Free.
Sea - IMDG (International Maritime Dangerous Goods):	Free.
Signify:	No Fire, No over exposure to sunlight, No rain.

15. Regulatory Information

The Safety Work Law of The People Republic of China.

The Law to The Dangerous Chemicals. (The 344th Law of State Department).

CHEMICAL INVENTORY

Canada:	This product is on the DSL.
Europe:	The ingredients of this mixture are on the EINECS inventory.
United States:	This product is on the TSCA inventory.
Australia:	This product is on the AICS inventory.
China:	This product is on the IECSC Inventory.
Japan:	This product is on the ENCS inventory.
Korea:	This product is listed on the Existing Chemicals List (ECL).
Philippines:	This product is on the PICCS.

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.