

TIANJIN NORTH JINHENG CHEMICAL INDUSTRY PLANT

material safety data sheet

ANTIOXIDANT 3114

1. PRODUCT IDENTIFICATION

Trade Name: ANTIOXIDANT 3114

Intended Use: Antioxidant

Health:	1
Flammability:	1
Reactivity:	0
Personal Protection:	X

HMIS RATING

Important Use Information:

This material is not intended for use in products for which prolonged contact with mucous membranes or abraded skin, body fluids, or abraded skin, or implantation within the human body, is specifically intended, unless the finished product has been tested in accordance with national and international applicable safety regulations. Because of the wide range of such potential uses, Network Performance Additives is not able to recommend this material as safe and effective for such uses and assumes no liability for such uses.

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: White to off-white powder
Environmental: This product exhibits low toxicity to aquatic organisms.
Health: This product has no known adverse effect on human health.
Odor: None
Physical Hazards: Refer to section number 7 for dust explosion information.

Primary Route of Entry: Dermal, inhalation, ingestion, eyes

3. COMPOSITION & INFORMATION ON INGREDIENTS

OSHA	Cas No.	Chemical Description	Weight %
*	27676-62-6	1,3,5-Tris(3,5-di-(tert)-butyl-4-hydroxybenzyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	100 wt %

* = NOT OSHA Hazardous Ingredient

4. FIRST AID MEASURES

First Aid for Swallowing: If swallowed, give at least 3-4 glasses of water, but DO NOT induce vomiting. Do not give anything by mouth to an unconscious or convulsing person. Seek medical attention immediately.

First Aid for Skin: Following skin contact, wipe away excess material with a dry towel. Then wash affected areas with plenty of water and soap, if available, for several minutes. Get medical attention if irritation occurs.

First Aid for Inhalation: If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops, or if breathing becomes difficult. If not breathing give artificial respiration. If breathing is difficult, give oxygen and get immediate medical attention.

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First Aid for Eye: Following eye contact, flush eyes with plenty of water for several minutes and seek medical advice.

Note to Physician: None known.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Carbon dioxide, dry chemical, foam, water mist

Unusual Hazards: The product can form an explosive dust/air mixture. Avoid dust formation and control ignition sources. Employ grounding, venting and explosion relief provisions in accord with accepted engineering practices in process operations capable of generating dust and/or static electricity.

Fire Fighting Instructions: Wear self-contained breathing apparatus and protective suit.

Hazardous Combustion Products: Burning may produce toxic combustion products.

6. ACCIDENTAL RELEASE MEASURES

Spill or Release Procedures: Sweep or vacuum and place in sealable container for disposal. Wear protective equipment. Do not release material into the environment.

7. HANDLING AND STORAGE

Handling: Wash thoroughly after handling and before eating, drinking, or using tobacco products. In accordance with good industrial practice, handle with care and avoid unnecessary personal contact. Avoid contact with eyes and prolonged or repeated skin contact. Do not inhale, taste or swallow. Use only with adequate ventilation. For industrial use ONLY.

Storage: Keep container tightly closed in a cool, well-ventilated place when not in use and during transport.

Explosion Hazards:

- *For All Packages:*

DANGER~ EXPLOSION RISK

- Combustible powder
- Risk of explosion if an air-dust mixture forms
- Avoid creating dusty conditions
- Empty only into grounded containers
- If container is larger than 550 US gallons (2m³) in volume, or when flammable solvents are present, the container must be inverted (with inert gas flush) or the system otherwise designed to prevent or contain an explosion—seek expert advice.
- *In addition, for products packaged in fused-lined (coated) fiber drums, fiber drums with conductive liner, steel drums, steel pails or bulk bags, the following instructions apply:*
 - Always ground the package before emptying
- *For products that have external protective packaging, discharge product only from the primary product packaging, NOT from external containers or its liner.*

The user is responsible for designing a system that safely handles solid additives and to ensure proper training of employees in the system's use.

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8. EXPOSURE CONTROL / PERSONAL PROTECTION

- Engineering Controls:** Work in well-ventilated areas. There are no OSHA or ACGIH exposure guidelines available for component(s) in this product.
- General Protection:** Wear coveralls.
- Eye/Face Protection:** Wear safety glasses or chemical goggles to protect against dust particles.
- Skin Protection:** Wear appropriate protective clothing and chemically resistant gloves to prevent skin exposure to dust particles.
- Respiratory Protection:** In operations where dusts are generated, wear a NIOSH-approved dust respirator as needed to mitigate exposure. Do not breathe dust.

9. PHYSICAL AND CHEMICAL PROPERTIES:

- Physical Form:** Solid
- Appearance:** White powder
- Boiling Point:** Not Applicable
- Evaporation Rate:** Not Applicable
- Freezing/Melting Point:** 219.5 – 225.5°C (427.1 – 437.9°F)
- Decomposition Temperature:** > 350°C [>662°F]
- Specific Gravity:** ~ 1 [H₂O = 1]
- Vapor Pressure:** ~ 5 x E(-15) mm Hg @ 25°C (77°F)
- Vapor Density:** Not Applicable
- % Volatile:** < 0.5%
- pH:** Not Determined
- Solubility:** < 1wt% in water at 20°C (68°F)
- Partition Coefficient (Octanol/Water):** Log Po/w = > 6
- Autoignition:** 680°C BAM (fluidized dust method)
- Flash Point:** > 289°C (552°F) Pinsky-Martens Closed Cup (ASTM D-93)

10. STABILITY AND REACTIVITY

- Chemical Stability:** Stable
- Conditions to Avoid:** Avoid static discharge
- Incompatibility with other Materials:** Strong oxidizing agents, strong acids, strong bases
- Hazardous Decomposition Products:** Thermal decomposition and burning may produce carbon monoxide, carbon dioxide and other toxic compounds. NO decomposition expected under normal storage conditions.
- Hazardous Reactions/Polymerization:** None expected under normal storage conditions.

11. TOXICOLOGICAL INFORMATION

- Acute Oral Toxicity:** LD50 (Rats): > 5,000 mg/kg
- Acute Dermal Toxicity:** LD50 (Rats): > 2000 mg/kg

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Acute Inhalation Toxicity:	LD50(Rabbits): > 10,000 mg/kg LD50 1 hour > 66.5 mg/L. There were no mortalities
Skin Irritation:	(Rabbits) Not an irritant
Eye Irritation:	(Rabbits) Not an irritant
Skin Sensitization:	(Guinea pigs) No animal sensitized in maximization test. (Humans) Not a primary irritant, fatiguing agent or sensitizer in any of 200 individuals when tested as a slurry (concentration not specified) in a Repeat Insult Patch Test.
Mutagenicity:	Ames test: Non-mutagenic Micronucleus test: Non-mutagenic Chinese Hamster ovary cells (in vitro): Non-mutagenic cytogenetic test (CHO): Non-mutagenic
Reproductive Toxicity:	Not Determined
Teratogenicity:	Not Determined
Neurotoxicity:	Not Determined
Subacute Toxicity:	Not Determined
Subchronic Toxicity:	In a three month study, rats were administered dietary concentrations of 0, 150, 800, 3,000 and 15,000ppm. There were no treatment-related changes in blood chemistry, organ weights or urinalysis. Macroscopic and microscopic examination did not reveal treatment-related effects. The females in the 3,000 and 15,000 dose groups were found to have a statistically significant, but slight, increase in mean circulating blood platelets. In the absence of other effects on the blood, it is not thought to be biologically meaningful. The males were found to have a slight increase in food consumption at the 15,000ppm dose level. The no observable effect level (NOEL) was determined as 3,000ppm (201 mg/kg/day) in males and 800ppm (50 mg/kg/day) in females. Treatment of rats with 0, 100, 12,000 or 10,000ppm in the diet for 28 days was found to cause increased food and water consumption in both sexes at the 10,000ppm level. The no observable adverse effect level (NOEL) was 1,000ppm, equivalent to the 95 mg/kg/day.
Chronic Toxicity:	Not determined
Carcinogenicity: (IARP; NTP; OSHA, ACGIH)	None of the components in this product at concentrations greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.
Absorption/Distribution/Excretion Metabolism:	Not Determined
Additional Information:	Not determined

12. ECOLOGICAL INFORMATION

Acute Toxicity to Fish:	LC50: >100 ppm 96-hour, (Zebra Fish)
Acute Toxicity to Invertebrates:	Daphnia magna, 24-hour, EC50: > 100 ppm
Acute Toxicity to Algae:	Green algae, 72 hour, EC50: > 100 ppm
Toxicity to Sewage Bacteria:	Inhibitory concentration on respiration of aerobic wastewater bacteria: IC20, IC50, IC80: >100 ppm
Activated Sludge Respiration Inhibition Test:	Not Determined
Biochemical Oxygen Demand (BOD):	Not Determined
Chemical Oxygen Demand:	Not Determined
Total Oxygen Demand (TOD):	Not Determined
Biodegradability:	Modified Sturm Test: Not readily biodegradable, with 0-7% in 28 days
Bioaccumulation:	Not Determined
Additional Environmental Data:	Not Determined

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13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all federal, state and local regulations.

14. TRANSPORT INFORMATION

U.S. Department of Transportation (DOT)	Not Regulated
International Maritime Dangerous Goods (IMDG):	Not Regulated
International Air Transportation Authority (IATA):	Not Regulated

15. REGULATORY INFORMATION:

Chemical Weapons Convention (CWC):

This product does not contain any chemicals listed under the Chemical Weapons Convention Schedule of Chemicals.

US Federal Regulations:

OSHA Hazardous Substance:

This material is classified as NOT hazardous under OSHA regulations

Clean Air Act – Hazardous Air Pollutants (HAP):

This product contains no hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

Clean Air Act – Volatile Organic Compounds (VOC):

This product does not contain any SOCM I Intermediate or Final Volatile Organic Compounds (VOC) as defined by the U. S. Clean Air Act Section 111 (40 CFR 60.489).

Clean Air Act – Ozone Depleting Substances (ODS):

This product does NOT contain nor was manufactured with any Class I or Class II ozone depleting substances (ODS) as defined by the U. S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App. A + B).

Clean Water Act – Priority Pollutants (PP):

This product contains no priority pollutants listed under the U. S. Clean Water Act Section 307 (2)(1) Priority Pollutant List (40 CFR 401.15).

Resource Conservation and Recovery Act (RCRA):

Not a hazardous waste under RCRA (40 CFR 261.21).

Occupational Safety and Health Act (OSHA):

This product is considered to be a hazardous chemical under the OSHA Hazard Communication Standard (29CFR 1910.1200). Its hazards are: Fire and the sudden release of pressure (explosion) hazard.

SARA Title III: Section 302 – Extremely Hazardous Substances (EHS):

This product contains no chemicals regulated under Section 302 (40 CFR 355) as extremely hazardous substances.

SARA Section 304 CERCLA Hazardous Substances:

This product does not contain any components regulated under Section 304 (40 CFR 302) as hazardous chemicals for emergency release notification ("CERCLA" List).

SARA Section 311/312 – Hazard Communication Standard (HCS):

This product is not regulated under Section 311-312 HCS (40 CFR 370).

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SARA Title III: Section 313 Toxic Chemical List (TCL):

This product does not contain any component(s) listed on the Section 313 Toxic Chemical List.

TSCA Section 5(e) – Consent Order / SNUR:

This product is not subject to a section 5(e) Consent Order or Significant New Use Rule (SNUR).

TSCA Section 5(f):

This product is not subject to a Section 5(f)6(a) rule.

TSCA Section 8(b) – Inventory Status:

All component(s) comprising this product are listed on the TSCA inventory.

TSCA Section 12(b) – Export Notification:

This product does not contain any component(s) subject to Section 12(b) export notification.

State Regulations:

California Proposition 65:

This product does not contain any components currently on the California List of Known Carcinogens and Reproductive Toxins.

Pennsylvania Right-To-Know:

This product does Not contain any components currently on the Pennsylvania Right-to-Know List of hazardous chemicals.

International Regulations:

Australian Inventory Status:

This product contains only chemicals that are currently listed on the Australian Inventory of Chemical Substances.

Canadian Inventory Status:

This product contains only chemical that are currently listed on the Canadian Domestic Substance List (DSL).

European Inventory Status (EINECS):

This product contains only chemicals that are currently listed on the European Inventory of Existing Commercial Chemical Substances (EINECS).

Korean Inventory Status:

This product contains only chemicals that are currently listed on the Korean Chemical Substances List.

Japanese Inventory Status:

This product contains only chemicals currently listed on the Japanese Ministry of International Trade and Industry List of Existing and New Chemical Substances.

Additional International Information:

This product contains only chemical that are currently listed on the Philippine Inventory of Chemical Substances.

16. OTHER INFORMATION

Disclaimer:

The information and recommendations contained herein are based upon data believed to be correct. However, NO guarantee or warranty of any kind expressed or implied is made with respect to the information contained herein.

Information Contact:

For technical information contact your technical sales representative. For additional health / safety / regulatory information, contact Product Safety at (330)773-2700.

Label Text:

EC Labeling Symbol = None