

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	6PPD
Manufacturer	TIANJIN EASTRICHON RUBBER ADDITIVES CO., LTD.
Chemical name	N-(1,3-Dimethylbutyl)-N'-phenyl-p-phenylenediamine
Synonym	Santoflex 13; Permanax 6PPD; 1,4-Benzenediamine, N(1,3-dimethylbutyl)-N'-phenyl-
Material uses	Antioxidant
Product type	Granule

SECTION 2. HAZARDS IDENTIFICATION

Hazard Information

Emergency Overview	WARNING! May irritate the eyes. May irritate the skin. Avoid breathing dust. May irritate the lungs
Eye Contact	Mild Eye Irritation: signs/symptoms can include redness, swelling, pain, and tearing.
Skin Contact	May cause an allergic skin reaction. Skin contact with molten material may result in a thermal burn. Mild Skin Irritation (after prolonged or repeated contact): sign/symtoms can include redness, swelling, and itching.
Inhalation	Exposure to dust particles generated from this material may cause irritation of the respiratory tract. Irritation (upper respiratory): signs/symptoms can include soreness of the nose and throat, coughing and sneezing.
Ingestion	Illness may occur after a single swallowing of relatively large quantities of this material.

SECTION 3. Composition/information on ingredients

Substance/mixture	Substance		
Ingredient name	CAS number	% by weight	
N-(1,3-Dimethylbutyl)-N'-phenyl-p-phenylenediamine	793-24-8	95-99	

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4. First aid measures

Description of necessary first aid measures

In Eyes	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.
On Skin	Wash with soap and water. Remove contaminated clothing and launder before reuse. Destroy or properly dispose of contaminated shoes.

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Inhaled	Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.
Swallowed	If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.
Notes To Physician	Treat symptomatically.

SECTION 5. Fire-fighting measures

Flash Point (°F/C)	400°F / 204°C
Unsuitable extinguishing	Cleveland Open Cup
Autoignition Temp. (°F/C)	Not Determined
Lower Explosion Limit in Air (LEL)	Not Determined
Upper Explosion Limit in Air (UEL)	Not Determined
Extinguishing Media	Water fog, carbon dioxide, foam, dry chemical
Special Exposure Hazards	Fight fire from a safe distance and from a protected location. Flammable dust when in finely divided and highly suspended state. Use water spray to cool fire exposed surfaces. Decomposition in fire may produce toxic gases. Do not allow runoff to enter waterways
Special Protective Equipment	Fire fighters should wear full protective clothing, including self-contained breathing equipment
Unusual Fire/Explosion Hazards	Toxic emissions may result if product is involved in a fire.

SECTION 6. Accidental release measures

Spill Procedures	Wear protective equipment specified. Avoid the generation of dust. Sweep, vacuum, or shovel and place into closable container for disposal.
Procedure for Cleaning/Absorption	Scoop up and remove. Isolate spill and stop leak where safe. Do NOT spread spilled product with water.
CERCLA Reportable Quantity (RQ)	Not Applicable

SECTION 7. Handling and storage

Handling	Avoid contact with skin and eyes. Avoid breathing dust; if exposed to high dust concentration, leave area immediately. Keep away from food and smoking materials. Good hygienic practices should be observed. Work clothes should be washed separately at the end of each work day. Disposable clothing
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should be discarded with material. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Do not reuse this container. Storage at temperatures above 90 F for an extended period of time should be avoided. Reclose containers of unused product. Keep containers tightly closed when not in use.

Storage Store closed containers in a cool, dry, well-ventilated area. Store away from strong oxidizing materials. Avoid exposure to direct sunlight.

SECTION 8. Exposure controls/personal protection

Eye Protection Wear safety glasses or goggles to protect against exposure. Wear eye protection appropriate to handling activities. Employees should wear appropriate protective (impervious) clothing and gloves when contact with material.

Skin Protection Normal work coveralls. Launder contaminated clothing before reuse.

Gloves Use gloves as a standard industrial handling procedure. Appropriate chemical resistant gloves should be worn.

Respiratory Protection Appropriate respiratory protection shall be worn when applied engineering controls are not adequate to protect against inhalation exposure.

Ventilation General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product. Adequate ventilation should be provided to keep dust concentrations below acceptable exposure limits. Discharge from the ventilation system should comply with the applicable air pollutions control regulations. Eliminate ignition sources. Use local exhaust to control to recommended P.E.L.

Airborne Exposure Limits Nuisance Dust. OSHA PEL/8Hr-TWA = 15 mg/m³ (Total Dust). OSHA PEL/8-Hr TWA = 05mg/m³ (Respirable Dust). ACGIH TLV/8-Hr TWA = 10 mg/m³.

SECTION 9. Physical and chemical properties

Appearance Dark Purple pastilles

Color Dark purple

Odor AROMATIC

pH Not available

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Melting point	45°C
Boiling point	Not Determined
Specific Gravity	1.1 @ 25°C
Density	Unknown
Bulk Density	Not Determined
Vapor pressure	Not Determined
Vapor density (Air=1)	Not Determined.
% Volatile by Volume	<0.5%
Solubility	Soluble in Acetone Ethanol Benzene Naphtha
Solubility in water	INSOLUBLE.
Viscosity	135-170 SUS @ 60°C
Other Data	Not determined.
Molecular	268.4
Molecular Formula	C18-H24-N2

SECTION 10. Stability and reactivity

Chemical Stability	Stable under normal conditions of handling, use and transportation. Stable if protected from heat and exposure to air
Hazardous Polymerization	Will not occur
Conditions to Avoid	Temperatures above 300°C. Avoid contact with strong oxidants such as liquid chlorine and concentrated oxygen. Air
Materials to Avoid	Strong oxidizers
Hazardous Decomposition Products	Oxides of nitrogen Carbon monoxide
Additional Guidelines	Not Applicable

SECTION 11. Toxicological information
Target Organs

Acute Oral LD50 (mg/kg)	3580 mg/kg
Acute Dermal LD50 (mg/kg)	>7940 mg/kg
Acute Inhalation LC50 (mg/l)	Not Determined
Principle Routes of Exposure	Dermal - skin. Inhalation.

Ingestion	Illness may occur after a single swallowing of relatively large quantities of this material
Skin Contact	May cause an allergic skin reaction. Skin contact with molten material may result in a thermal burn. Mild Skin Irritation (after prolonged or repeated contact): sign/symptoms can include redness, swelling, and itching.

Inhalation	Exposure to dust particles generated from this material may cause irritation of the respiratory tract. Irritation (upper respiratory): signs/symptoms can include soreness of the nose and throat, coughing and sneezing
Eye Contact:	Mild Eye Irritation: signs/symptoms can include redness, swelling, pain, and tearing
Aggravated Conditions:	Dermal ailments. Blood disorders. This material or its emissions may cause an allergic or sensitization reaction and thereby aggravate systemic disease. Liver disorders
Carcinogenicity Comment:	This product or one of its ingredients present 0.1% or more is NOT listed as a carcinogen or suspected carcinogen by NTP, IARC, or OSHA. Carcinogenic: Category 3
Other:	Decomposition products and fumes from vulcanization and cross-linking may cause eye, skin and respiratory sensitization. May be a skin sensitizer
Primary Irritation Effect:	Not determined
Carcinogenicity:	Negative in standard tests using bacteria and yeast cells
Genotoxicity:	None
Reproductive/Developmental	None
Toxicity:	

SECTION 12. Ecological information

Acute Fish Toxicity	96Hr LC50 Rainbow Trout 0.13 mg/l 96Hr LC50 Bluegill Sunfish 0.13 mg/l 96Hr LC50 Fathead Minnow 0.45 mg/l
Acute Crustaceans Toxicity	48Hr EC50 Daphnia Magna 0.82 mg/l
Acute Algae Toxicity	96Hr EC50 Algae (Cell Number) 0.60 mg/l
Octanol/Water Coefficient	59000 +/- 34000 (Calculated)
Chemical Fate Information	Bioconcentration Factor = 490 (calculated)
Other Information	Not Available

SECTION 13. Disposal considerations

Disposal of Waste Method	This product is not regarded as hazardous waste. Dispose in accordance with local regulations. Incineration recommended in approved incinerator according to federal, state, and local regulations.
Contaminated Packaging	If empty container retains product residues, all label precautions must be observed. Transport with all closures in place. Return for reuse or dispose according to national or local regulations. Do NOT reuse container.

SECTION 14. Transport information

DOT:DOT Status	Not Regulated
DOT Shipping Name	None
DOT Reportable Quantity (lbs)	None
ICAO/IATA:Status	None
Proper Shipping Name	None
UN/NA Number	None
IMDG:Status	Not Regulated
Proper Shipping Name	None
TDG (Canada): Status	Not determined
Proper Shipping Name	None

SECTION 15. Regulatory information

Worldwide Inventory Status	
TSCA (USA)	Listed
Canadian DSL	Listed
Canadian NDSL	N/A
EINECS/ELINCS (Europe)	Listed
Japanese Inventory (ENCS)	Listed
Korean Chemical Inventory (ECL)	Listed
Australian Chemical Inventories (AICS)	Listed
New Zealand (NZ)	Listed
Phillipines (PICCS) Inventory	Listed
China (CLECS)	Listed
US Regulatory Rules	
SARA Section 302	Not Applicable
SARA 311/312 Hazard Catagories	Immediate
SARA 313 Chemical	N/A
RCRA Status	Not a RCRA waste.
Other Regulations	
California Proposition 65	NONE
NONE	N/A
Pennsylvania Right to Know List	N/A
Florida Right to Know	N/A
Minnesota Right to Know	N/A
MA Right to Know Law	N/A

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FDA Status 21 CFR

Not Regulated For Use in 21 CFR.

Canadian Regulations

WHMIS Hazard Class

D2B TOXIC MATERIALS / Materials Causing Other
Toxic Effects

NPRI

N/A

SECTION 16. Other information

The following has been revised since the last issue of this MSDS:

Nothing has been revised.

Additional Information

Not Applicable

Important Note

This information is furnished without warranty, expressed or implied, as to accuracy or completeness. The information is obtained from various sources including the manufacturer and other third party sources. The information may not be valid under all conditions nor if this material is used in combination with other materials or in any process. Final determination of suitability of any material is the sole responsibility of the user.