

**JINGMEN MEIFENG CHEMICAL CO., LTD.
MATERIAL SAFETY DATA SHEET****Product Name: UV-328****SECTION I - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION****Product Name: UV-328****Manufacturer: JINGMEN MEIFENG CHEMICAL CO.,LTD.****Address: DUODAO DISTRICT, JINGMEN CITY, HUBEI PROVINCE, CHINA****Telephone Number:****Telephone Number:****Sale office: 86-714-6516706****Factory: 86-714-6516752****FAX Number:****Sale office: 86-714-6516705****Factory: 86-714-6516705****Synonyms: 2-(2'-Hydroxy-3',5'-di-tert-amylphenyl) benzotriazole; 2-(2H-benzotriazol-2-yl)-4,6-bis(1,1-dimethylpropyl) phenol; 2-(3,5-Di-tert-amyl-2-hydroxyphenyl)-2H-benzotriazole****Product Use: UV stabilizer****Chemical Name: Phenol, 2-(2H-benzotriazol-2-yl)-4,6-bis(1,1-dimethylpropyl)-****Chemical Family: Benzotriazole*****Additional Information***

No information available

SECTION II - COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS No.	HPLC %	EXPOSURE LIMITS
2-(2'-Hydroxy-3',5'-di-tert-amylphenyl) benzotriazole	25973-55-1	Approx. 99	Y (Hazardous) 15 mg/m ³ (PNOR) (OSHA PEL TWA) Not established (OSHA PEL STEL) Not established (OSHA PEL CEIL) 10 mg/m ³ (PNOS) (ACGIH TLV TWA) Not established (ACGIH TLV STEL) Not established (ACGIH TLV CEIL)

*Indented chemicals are components of previous ingredient.

Additional Information5 mg/m³ Respirable Dust Level (OSHA)3 mg/m³ Respirable Dust Level (ACGIH)

PNOR = Particulates Not Otherwise Regulated

PNOS = Particulates Not Otherwise Specified

SECTION III - HAZARDS IDENTIFICATION**Emergency Overview:**

Off-white to yellow crystalline powder, granules or pellets No odor

Dusts can form an explosive mixture with air.

Relevant Routes of Exposure:

Ingestion, inhalation and skin absorption

Signs and Symptoms of Overexposure:

Signs and symptoms of anemia

Medical Conditions Generally**Aggravated By Exposure:**

None reported

Potential Health Effects: See Section XI for additional information.**Eyes:**

Not expected to be a hazard in normal industrial use.

As with any dust, mechanical irritation is possible to the eye.

Skin: May cause slight skin irritation.**Ingestion:**



Not expected to be a hazard in normal industrial use.

Inhalation:

As with any dust, mechanical irritation is possible to mucous membranes and the respiratory tract.

Chronic Health Effects:

Long term oral exposure may result in liver, kidney, reproductive, prostate and anemia effects.

Carcinogenicity:

NTP: No ACGIH: No

IARC: No OTHER: No

OSHA: No

Additional Information

No information available

SECTION IV - FIRST AID MEASURES

Eyes:

Flush with large volumes of water for at least 15 minutes. Get medical attention.

Skin:

Wash with large volumes of soap and water for at least 15 minutes. If irritation develops, get medical attention.

Ingestion:

If conscious, give person 1 to 2 glasses of water. Get medical attention immediately.

Inhalation:

Remove person to fresh air. Get medical attention.

Antidotes:

No information available

Notes to Physicians and/or Protection for First-Aiders:

No information available

Additional Information

No information available

SECTION V - FIRE FIGHTING MEASURES

Flammable Limits in Air (% by Volume):

Not available

Flash Point: 230 degrees C

Autoignition Temperature:

Not available

Extinguishing Media:

All conventional media are suitable.

Fire Fighting Instructions:

Wear a self-contained breathing apparatus and protective clothing to prevent skin and eye contact in fire situations.

Unusual Fire and Explosion Hazards:

Under fire conditions, toxic and irritating fumes may be emitted.

Dusts can form an explosive mixture with air.

Flammability Classification:

Combustible dust

Known or Anticipated Hazardous Products of Combustion:

Oxides of nitrogen

Carbon monoxide and carbon dioxide

Additional Information

No information available

SECTION VI - ACCIDENTAL RELEASE MEASURES

Accidental Release Measures:

Shut off all sources of ignition.

Wearing appropriate personal protective equipment, carefully sweep up material and place in suitable labeled containers for disposal.

Avoid creating a dusting condition.

Use only non-sparking tools.

Personal Precautions: See Section VIII.



Environmental Precautions:

Avoid releasing to the environment.

Additional Information

No information available

SECTION VII - HANDLING AND STORAGE

Handling:

Use appropriate personal protection equipment.

Avoid eye, skin and clothing contact.

Avoid breathing dust.

Avoid repeated and prolonged contact.

Avoid creating a dusting situation.

Keep away from heat, sparks and flame.

Prevent buildup of static electricity.

All equipment should be properly grounded.

Storage:

Store in a cool, dry, well-ventilated area away from incompatible materials.

Store away from heat, sparks, and flame.

Keep container tightly closed.

Keep material in supplier's packaging.

Other Precautions: Avoid contact of material with open flames.

Additional Information

No information available

SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

Adequate general ventilation is recommended when handling to control airborne levels.

Ventilation Requirements:

Use local exhaust to minimize dusting.

Use mechanical ventilation for general area control.

Personal Protective Equipment:

Eye/Face Protection:

Chemical safety glasses with side shields or chemical safety goggles

Skin Protection:

Gloves - PVC

Clothing designed to minimize skin contact

Respiratory Protection:

Wear a NIOSH/MSHA approved dust respirator if dusting occurs, or there is potential for airborne exposures to exceed established threshold values.

Consult the OSHA respiratory protection information located at 29CFR 1910.134 and the American National Standard Institute's Practices of Respiratory Protection Z88.2.

Other Protective Clothing or

Equipment:

No information available

Exposure Guidelines: See Section II.

Work Hygienic Practices:

Wash thoroughly after handling.

Wash contaminated clothing before reuse.

Additional Information

No information available

SECTION IX - PHYSICAL & CHEMICAL PROPERTIES

Appearance: Off-white to yellow crystalline powder or pellets

Percent Volatile: Not available

Boiling Point: 477.84 degrees C **pH Value:** Not available

Bulk Density: Not available **pH Concentration:** Not available

Color: Off-white to yellow **Physical State:** Solid

Decomposition Temperature: Not available **Reactivity in Water:** Not water reactive



Evaporation Rate: Not available **Saturated Vapor Concentration:** Not available
Freezing Point: Not available **Softening Point:** Not available
Heat Value: Not available **Solubility in Water:** 0.015 mg/L @ 25 degrees C
Melting Point: 80 - 88 degrees C **Specific Gravity or**
Density (Water=1): 1.17 at 25 degrees C
Molecular/Chemical Formula: C22H29N3O **Vapor Density:** Not available
Molecular Weight: 351 **Vapor Pressure:** 1.93 E-10 mmHg
Octanol/Water Partition Coefficient: Log Kow = 7.25 **Viscosity:** Not available
Odor: No odor **Volatile Organic Compounds:** Not available
Odor Threshold: Not available **Water/Oil Distribution Coefficient:** Not available
Particle Size: Not available **Weight Per Gallon:** Not available

Additional Information

No information available

SECTION X - STABILITY AND REACTIVITY

Stability: Stable under normal conditions of handling and use.

Conditions to Avoid: None

Incompatibility With Other Materials:

Strong oxidizers

Hazardous Decomposition Products:

Thermal decomposition may produce the following:

Oxides of nitrogen

Carbon monoxide and carbon dioxide

Hazardous Polymerization:

Will not occur

Conditions to Avoid: None

Additional Information

No information available

SECTION XI - TOXICOLOGICAL INFORMATION

VALUE (LD50 OR LC50)	ANIMAL	ROUTES	COMPONENTS
>0.4 mg/L/4H	Rat Acute	Inhalation	2-(2'-Hydroxy-3',5'-di-tert-amylphenyl) benzotriazole
>7,750 mg/kg	Rat Acute	Oral	2-(2'-Hydroxy-3',5'-di-tert-amylphenyl) benzotriazole
>1,100 mg/kg	Rabbit Acute	Dermal	2-(2'-Hydroxy-3',5'-di-tert-amylphenyl) benzotriazole
>7,750 mg/kg	Mouse Acute	Oral	2-(2'-Hydroxy-3',5'-di-tert-amylphenyl) benzotriazole

Toxicological Information:

The toxicological properties of this material have not been fully determined.

This material has been determined not to be a primary eye irritant in rabbits.

This material has been found to be a slight skin irritant in rabbits.

This material did not cause sensitization in a guinea pig maximization study.

This material was not determined to be mutagenic in the Ames Test.

In a subchronic feeding study at a 2,000 mg/kg dose level with rats, this material produced decreased body weight, increased liver, kidney and testes (male) weight. Necropsy showed damage to liver. In 90 day feeding studies with rats, liver and kidney damage was 400 ppm. In a 90 day feeding study in dogs, liver damage, kidney damage and anemia were observed with corresponding NOELs of 15 mg/kg, 15 mg/kg and 60 mg/kg respectively. In addition, the 90 day studies have shown adverse reproductive effects (uterine and spermiogenesis) with a NOEL of 60 mg/kg and atrophy of the prostate with a NOEL of 15 mg/kg.

Other acute and chronic health hazards, as well as target organs, are unknown.

As with all dusts, inhalation of air concentration levels above the PNOR may cause irritation and adverse lung effects.

Additional Information

No information available



SECTION XII - ECOLOGICAL INFORMATION

Ecological Information:

The following ecological information is offered:
 LC50 in fish (Brachydanio rerio)(96H) >100 mg/L
 EC50 in algae (Scenedesmus subspicatus)(72H) >10 mg/L
 EC50 in daphnia magna (24H) >100 mg/L
 This product is not biodegradable.
 Avoid releasing to the environment.

Additional Information

No information available

SECTION XIII - DISPOSAL CONSIDERATIONS

Disposal Considerations:

Dispose of waste at an approved chemical disposal facility in compliance with all current Local, State/Province, Federal/Canadian laws and regulations.

Additional Information

No information available

SECTION XIV - TRANSPORT INFORMATION

U.S. DOT	
Proper Shipping Name: Not regulated	
Hazard Class: N/A	ID Number: N/A
Packing Group: N/A	Labels: N/A
Special Provisions: N/A	Packaging Exceptions: N/A
Non-Bulk Packaging: N/A	Bulk Packaging: N/A
Passenger Air/Rail Limit: N/A	Air Cargo Limit: N/A
Vessel Stowage: N/A	Other Stowage: N/A
Reportable Quantity: N/A	

AIR - ICAO OR IATA	
Proper Shipping Name: Not regulated	
Hazard Class: N/A	ID Number: N/A
Subsidiary Risk: N/A	Packing Group: N/A
Hazard Labels: N/A	Packing Instructions: N/A
Air Passenger Limit Per Package: N/A	Packing Instruction -Cargo: N/A
Air Cargo Limit Per Package: N/A	Special Provisions Code: N/A

WATER - IMDG	
Proper Shipping Name: Not regulated	
Hazard Class: N/A	ID Number: N/A
Packing Group: N/A	Subsidiary Risk: N/A
Medical First Aid Guide Code: N/A	

Additional Information

No information available

SECTION XV - REGULATORY INFORMATION

U.S. Federal Regulations:

The components of this product are either on the TSCA Inventory or exempt (i.e. impurities, a polymer complying with the exemption rule at 40 CFR 723.250) from the Inventory.

State Regulations:

None known

International Regulations:

This material (or each component) is listed on the following inventories:

Canada - DSL

EU - EINECS



Australia - AICS
Japan - ENCS
Korea - ECL
Philippines - PICCS
China - List I
Canadian WHMIS Hazard Class and Division = D.2.b

SARA Hazards:

Acute: No **Chronic:** Yes

Reactive: No **Fire:** No

Pressure: No

Additional Information

The above regulatory information represents only selected regulations and is not meant to be a complete list.

SECTION XVI - OTHER INFORMATION

NFPA Codes:

Health: NR **Flammability:** NR

Reactivity: NR **Other:** NR

HMIS Codes: * indicates chronic health hazard.

Health: 1* **Flammability:** 1

Reactivity: 0 **Protection:** X

Label Statements: Not available

Other Information: Abbreviations:

(L) = Loose bulk density in g/ml

LOEC = Lowest observed effect concentration

MATC = Maximum acceptable toxicant concentration

NA = Not available

N/A = Not applicable

NL = Not limited

NOAEL = No observable adverse effect level

NOEC = No observed effect concentration

NOEL = No observable effect level

NR = Not rated

(P) = Packed bulk density in g/ml

PNOR = Particulates Not Otherwise Regulated

PNOS = Particulates Not Otherwise Specified

REL = Recommended exposure limit

TS = Trade secret

Additional Information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide.

The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. **HUANGSHI MEIFENG CHEMICAL CO.,LTD.** shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.