

17335 Daimler Street, Irvine, CA 92614

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MATERIAL SAFETY DATA SHEET

RICHVIN 328 Revision DATE:2012/01/08

1.Identification of the Substance/Preparation and the Company/Undertaking

Chemical characterization 2-(2-hydroxy-3,5-di-tert-amylphenyl)benzotriazole

CAS Number 25973-55-1

Producer/Supplier RICH YU CHEMICAL CO., LTD.

CONTACT PERSON MR.SEAN CHIANG

2. Composition/Information on Ingredients

TRADE NAME: RICHVIN 328

CAS NO: 25973-55-1

SYNONYMS:TINUVIN 328(CIBA PRODUCT)

MOLECULAR WEIGHT:351.5

3. Hazards Identification

No special hazards

4.First Aid Measures

Skin contact

Wash off with soap and plenty of water. Do not use organic solvents.

Eve contact

Rinse immediately with plenty of water for at least 15 minutes. In case of eye irritation, seek medical attention.

Inhalation

Move to fresh air. In case of prolonged exposure, seek medical attention. In case of indisposition, seek medical attention. In case of irritation of respiratory system or mucous membranes, seek medical attention.

Ingestion

Immediately give plenty (>2000ml) of water (if possible charcoal slurry) . In case of spontaneous vonitiog shoule be sure that vomitus can freely drain due of danger suffocation. Give water repeatedly . Artificial induction of vomiting should be restricted to first aid staff. Seek medical advice .

5.Fire-Fighting Measures

Suitable extinguishing media

Water spray, Carbon dioxide(CO2), Foam, Dry powder

Extinguishing media which must not be used for safety reasons

High volume water jet

Exposure hazards

Contaminated water from fire hoses or sprinklers,etc.,must be prevented from draining into watercourses, sewers, or the ground water. Sufficient measures must be taken to retain water used for extinguishing. Contaminated water and soil must be disposed of in conformity with local regulations.

Special protective equipment for firefighters

Wear full protective clothing. Wear self-contained breathing apparatus.

Hazardous decomposition products

Oxides of carbon, Oxides of nitrogen (NOx), Toxic gases/vapors

6.Accidental Release Measures



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Personal precautions

Do not breathe vapors/dust. Remove all sources of ignition. Avoid contact with skin, eyes and clothing.

Environmental precautions

Do not flush into surface water, sanitary sewer or ground water system.

Methods for cleaning up

Use mechanical handling equipment. Collect spilled product into suitable containers, which must be tightly sealed and properly labeled. Avoid dust formation.

7.Handling and Storage

Handling

Avoid dust formation and ignition sources. Ensure good local exhaust ventilation. Do not eat, drink or smoke at the workplace. Danger! Explosion risk. Risk of explosion if an air-dust mixture forms. Avoid creation dusty conditions. Empty only into earthed or use a system otherwise designed to prevent or contain an explosion-seek expert advice. SHELF LIFE: 1 year minimum in sealed containers protected from light and air.

Please store at dry and cool place.

8.Exposure Controls/ Personal Protection

Exposure limit(s)

Value not tested

Technical measures/ Precautions

No special precautions required.

Respiratory protection

Effective dust mask

Hand protection

Protective gloves

Eye protection

Suitable goggles or face protection

Skin and body protection

Working clothes, closed footwear

9. Physical and Chemical Properties

Form CRYSALLINE POWDER

Colour Slight yellowish TO OFF-WHITE

OdourFAINTBoiling/ temperature>300°CDensity1.17@20°C

Flash point $>150^{\circ}$ C, (Marcusson)

Melting point80-88°CIgnition Temperaturenot testedOxidising propertiesnot testedSelf-ignition temperaturenot tested

Water solubility <0.01wt% in water @ 20°C



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Vapour pressure <0.01mmHg (20°C)

Partition coefficient; Log Pow not tested PH-value not tested **Explosive properties** not tested

10.Stability and Reactivity

Decomposition temperature >300 ℃

Condition to avoid Static discharges.

Materials to avoid Strong acids, strong bases and

Strong oxidizing agents.

Hazardous decomposition products Oxides of carbon, Oxides of

> Phosphorus, Oxides of nitrogen (Nox), Toxic gases/vapours

11. Toxicological Information

Acute oral toxicity LD50 >2000mg/kg EED 88/379

conventional

method

Acute dermal EED 88/379 not irritant

conventional

method

Acute eye irritation/corrosion not irritant EED 88/379 Rabbit conventional

12. Ecological Information

Ecotoxic effects-BOD

Irritation/corrosion

Rat

Rabbit

MODIFIED STURM TEST :not biodebradable,2-10% in 28days.

FISH TOXITY: ZEBRA FISH, LC50 96H:>100ppm

Do not discharge product unmonitored into the environment

13.Disposal Considerations

Waste from residues/unused products

Residual chemical be disposed by incineration or by other modes of disposal in compliance with local legislation **Contaminated packaging**

Contaminated packaging material should be treated equivalent to residual chemical. Clean packaging material should be subjected to waste management (recovery recycling, reuse) according to local legislation.

14.TRANSPORTATION INFORMATION

DOT proper shipping name:

NOT REGULATED AS A HAZARDOUS MATERIAL BY THE U.S. dept. of transportation (DOT)21 CFR

178.2010 HAZADOUS MATERIAL TABLE.

LAND TRANSPORT ADR/RID : No classification assigned. AIR TRANSPORT IATA/ICAO: NO classification assigned. MARITIME TRANSPORT TMDG : No classification assigned.

15.REGULATORY INFORMATION

EPA TSCA section 8(b) chemical inventory.



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RCRA status: NOT a hazardous waste under RCRA(40 CFR 261)

CERCLA status :NOT A HAZARDOUS waste under RCRA(40 CFR 261)

SAFETY S2 Keep out of reach of children.

PHRASES: S13 Keep away form food, drink and animal feeding stuffs.

S24 Avoid contact with skin.

S36 Wear suitable protective clothing.

S46 If swallowed, seek medical advice immediately and show this container or label.

FDA:21CFR175.105.

16.OTHERS

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