**Safety Data Sheet**

**POLYURETHANE CURING AGENT**

**Revision Date 03/08/2024**

**SECTION 1: PRODUCT AND COMPANY INFORMATION**

|  |  |  |
| --- | --- | --- |
| **Product Name** | **:** | Polyurethane Curing Agent |
| **Product Use** | **:** | Waterproofing Coating |
| **Supplier** | **:** | QUANZHOU BIG FIR TREE IMPORT&EXPORT CO.,LTD |
| **Address** | **:** | Room 207, Champagne Center, Donghai, Fengze District, Quanzhou City, Fujian Province, China. |
| **Telephone** | **:** | +86 19959722622 |
| **E-Mail Address** | **:** | monicachan@bigfirtree.net |

**SECTION 2 HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW**

**IMMEDIATE CONCERNS**: Health concern; Toxic gases/fumes may be given offduring burning or thermal decomposition. Combustible liquid under extreme heat or when contaminated with water. May aggravate asthma, respiratory disorders, skin allergies, and eczema.

**COLOR:** Dark Brown

**PHYSICAL STATE:** Liquid

**ODOR**: Musty, almost odorless

**POTENTIAL HEALTH EFFECTS**

**EYES:** Causes irritation to eyes.

SKIN: Causes irritation to skin. Skin sensitizer.

INGESTION: Harmful.

INHALATION: May cause lung damage.

CARCINOGENICITY: Not listed by NTP, IARC, ACGIH, or OSHA as a carcinogen.

ROUTES OF ENTRY: Eyes, Skin, Mucous Membranes, Ingestion

TARGET ORGAN STATEMENT: Eyes, Skin, Inhalation

**SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS**

|  |  |  |
| --- | --- | --- |
| **Name** | **CAS No.** | **%** |
| Polyurethane prepolymer | 103837-45-2 | 100 |

**SECTION 4 FIRST-AID MEASURES**

|  |  |  |
| --- | --- | --- |
| **EYES** | **:** | Flush eye(s) for 15 minutes or more; if irritation persists, consult a physician (preferably an eye  specialist) and show MSDS. |
| **SKIN** | **:** | Remove contaminated clothing immediately. Wash area thoroughly with a polyglycol-based skin cleanser or corn oil. Seek medical attention if symptoms are present after washing. |
| **INGESTION** | **:** | Seek medical attention immediately. Do not induce vomiting. |
| **INHALATION** | **:** | Remove individual from site of exposure and place in fresh air. Seek medical attention if breathing is difficult. |
| **ADDITIONAL INFO** | **:** | May cause asthma-like symptoms. Inhaled beta2 agonist and oral or parenteral corticosteroids are recommended. Consult a physician. Any additional symptoms and effects are described in Section 11. |

**SECTION 5 FIRE-FIGHTING MEASURES**

|  |  |  |
| --- | --- | --- |
| **AUTOIGNITION TEMPERATURE** | **：** | Not Determined |
| **EXTINGUISHING MEDIA** | **：** | Foam, carbon dioxide, dry powder. Avoid Water. |
| **EXPLOSION HAZARDS** | **：** | No data available. |
| **FIRE FIGHTING PROCEDURES** | **：** | Reacts with water. If water is used as extinguishing agent, use large amounts of water and wear protection against isocyanate and nitrogen oxide fumes. Wear positive pressure self-contained breather apparatus and full protective clothing. |
| **FIRE FIGHTING EQUIPMENT** | **：** | As in any fire, wear self-contained breathing apparatus pressure-demand,  (MSHA/NIOSH approved or equivalent) and full protective gear. |
| **UNUSUAL FIRE & EXPLOSION HAZARDS:** |  | Evacuate persons from down-wind of site. Do not re-seal contaminated containers. |
| **HAZARDOUS COMBUSTION PRODUCTS** | **：** | Isocyanate vapors, oxides of carbon and nitrogen, traces of hydrogen cyanide. |

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**SMALL SPILL:** Keep upwind of spill. Absorb onto mineral absorbent and place into dry open top containers. Neutralize with 5% soda ash solution, 10 parts solution to 1 part waste. Let stand 48 hours prior to disposal. Flush spill area with large volumes of water and contain.

**LARGE SPILL:** Keep upwind of spill. Prevent from entering into soil, ditches, sewers, waterways, and/or groundwater. Absorb with material such as sand, dirt, vermiculite, or clay. Not cement powder. Collect in suitable and properly labeled open containers, not sealed and neutralize as in small spills.

**RELEASE NOTES:**In case of accident or road spill notify:

**SECTION 7 HANDLING AND STORAGE**

**HANDLING: MIX WELL BEFORE USE**

Read label and SDS prior to handling. Provide suitable extraction/ventilation at processing machines. Keep away from all sources of ignition – No Smoking. Cool endangered containers by water spray.

**STORAGE:** Keep container in cool well-ventilated place, maximum 41˚C. Keep containers tightly closed. Do not store product contaminated with water to prevent potential hazardous reaction. Product degradation to an organic tin salt may occur upon exposure to direct sunlight.

**STORAGE PERIOD:** 24 Months

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**ENGINEERING CONTROLS**

Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product. If local exhaust is not available, general (mechanical) ventilation is acceptable, if exposure is maintained below the TLV.

**PERSONAL PROTECTIVE EQUIPMENT** .

**EYES AND FACE:**

Safety Goggles recommended for use.

**SKIN:**

Gloves are recommended for use. Impervious footwear recommended.

**RESPIRATORY:**

In case of insufficient ventilation, respiratory protective equipment: Cartridge for organic

gases and vapors.

**WORK HYGIENIC PRACTICES:**

Avoid breathing dust or mist from solutions. Do not eat, drink, or smoke in

work area. Wash hands thoroughly after use

**PROTECTIVE CLOTHING**

Impermeable protective clothing is recommended.

**OTHER USE PRECAUTIONS:**

None.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

|  |  |  |
| --- | --- | --- |
| **Appearance** | **:** | Liquid |
| **Color** | **:** | Dark brown |
| **Odor** | **:** | Musty, almost odorless |
| **Freezing Point** | **:** | Forms crystals below 10˚C |
| **Ignition Temperature** | **:** | No data available |
| **Decomposition Temperature** | **:** | No data available |
| **Lower Explosion Limit (Vol%)** | **:** | No data available |
| **Upper Explosion Limit (Vol%)** | **:** | No data available |
| **Flammability (Solid, Gas)** | **:** | No data available |
| **Oxidizing Properties** | **:** | No data available |
| **Autoignition Temperature** | **:** | No data available |
| **Ph** | **:** | Not applicable |
| **Melting Point/Range** | **:** | No data available |
| **Boiling Point/Boiling Range** | **:** | Decompresses prior to boiling |
| **Vapor Pressure** | **:** | ~8.5 (air=1) |
| **Density** | **:** | 1.2 @ 25˚C |
| **Viscosity, Dynamic** | **:** | 150-220 cPs @ 25˚C |
| **Viscosity, Kinematic** | **:** | No data available |
| **Relative Vapor Density** | **:** | No data available |
| **Evaporation Rate** | **:** | No data available |
| **Burning Rate** | **:** | No data available |

**SECTION 10 STABILITY AND REACTIVITY**

**STABLE:** Chemically stable under normal and anticipated storage and handling conditions.

**HAZARDOUS POLYMERIZATION:** May be initiated by metal salts, strong bases or temperatures in excess of 175˚C. May be catalyzed by strong bases or water.

**CONDITIONS TO AVOID:** 21˚C > 41˚C. Avoid moisture. Avoid elevated temperatures. Pressure may build rapidly.

**INCOMPATIBLE MATERIALS:** Water, acids, ammonia, alcohols, alkalies, surfactants, bases, metal compounds, moist air, strong oxidizers. Reactions may be violent. Reacts with water to form heat, carbon dioxide, and insoluble urea. Water may cause pressure build-up in sealed containers. Increased temperature will speed up reactions. Avoid moist organic absorbent materials.

**SECTION 11: TOXICOLOGICAL INFORMATION**

**ACUTE ORAL:** LD50: >2,000mg/kg [Rat]

**EYE EFFECTS:** The toxic effects of this material are not known.

**SKIN EFFECTS:** LD50: >9,4000mg/kg [Rabbit]

**INHALATION EFFECTS:** LD50: 490mg/m3, 4h [Rat]

**INHALATION EFFECTS (Repeated dose toxicity):**

90 days; NOAEL: 1 mg/m3[Rat, 6hrs/day 5 days/week]

2 years; NOAEL: 0.2 mg/m3[Rat, 6hrs/day 5 days/week]

Irritation to lungs and nasal cavity.

**INGESTION EFFECTS:** LD50: >10,000mg/kg [Rat]

**MUTAGENICITY:** Negative [Salmonella typhimuriu, Metabolic activation:with/without]

**DEVELOPMENTAL TOXICITY:** No effect, Fetotoxicity seen only with maternal toxicity. [Rat, inhalation, gestation days 6-15, 6hrs/day: 12mg/m3(Maternal 4mg/m3)]

**GENETIC TOXICOLOGY**:Inconclusive. Weakly positive in some i-vitro studies; others were negative. Animal mutagenicity studies were predominately negative.

**CARCINOGENICITY:**Lung tumors [Rat, inhalation, 2 years, 6hrs/day, 5 days/week] Tumors occurred concurrently with respiratory irritation and lung injury. Current exposure guidelines are expected to protect against these effects.

**SECTION 12: ECOLOGICAL INFORMATION**

**GENERAL COMMENTS:** Almost non-toxic to aquatic organisms on an acute basis. Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

**ENVIRONMENTAL DATA**

**Fish Acute and Prolonged Toxicity:**

LC50: >1,000mg/l [Danio rerio (zebra fish), static test 96h]

**Aquatic Invertebrate Acute Toxicity:**

EC50: >1,000mg/l [Daphnia magna (water flea), static test 24h]

**Aquatic Plant Toxicity:**

NOEC: 1,640mg/l [Desmodesmus subspicatus (green algae), static test-growth rate inhibition 72h]

**Micro-organism Toxicity:**

EC50: >100mg/l [OECD 209 Test, activated sludge, Respiration inhibition 3h]

**Soil Dwelling Organisms Toxicity:**

EC50: >1,000mg/l [Eisenia fetida (earthworms), 14d]

**BIOACCUMULATIVE POTENTIAL:**

**Bioaccumulation**: Low Potential; BCF<100. In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

**Bioconcentration Factor (BCF):**92 [Cyprinus carpio (Carp)]

**Mobility in Soil:**Movement is limited.

**Biodegradation:**OECD 302 C Test, 28d = 0%. Material reacts with water to form insoluble polyureas which appear to be stable. In the atmospheric environment, material is expected to have a short tropospheric half-life, based on calculations and related diisocyanates.

**SECTION 13: DISPOSAL CONSIDERATIONS**

**DISPOSAL METHOD**: Dispose of in accordance with local, state, and federal regulations.

**PRODUCT DISPOSAL**: **Do not dump into any sewers, on the ground, or into any body of water.** In accordance with local authority regulations, take to a special waste incineration plant.

**EMPTY CONTAINER DISPOSAL**: If empty contaminated containers are recycled or disposed of, the receiver must be informed about possible hazards.

**SECTION 14: TRANSPORTATION INFORMATION**

**NON-BULK (I.E. 55 GAL DRUM, 1 GAL JUG) – DOT (DEPARTMENT OF TRANSPORTATION)**

NOT REGULATED

**IMDG**

NOT REGULATED

**ICAO/IATA**

NOT REGULATED

**ADDITIONAL INFORMATION:**

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

**SECTION 15: REGULATORY INFORMATION**

**311/312 HAZARD CATEGORIES:**

**FIRE:** NO

**REACTIVITY:** YES

**ACUTE HEALTH HAZARD:** YES

**CHRONIC HEALTH HAZARD:** YES

**313 REPORTABLE INGREDIENTS:**

|  |  |  |
| --- | --- | --- |
| **Name** | **CAS No.** | **%** |
| Polyurethane prepolymer | 103837-45-2 | 100 |

**PENNSYLVANIA RIGHT-TO-KNOW**

|  |  |  |
| --- | --- | --- |
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**COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION,**

**& LIABILITY ACT OF 1980, SECTION 103 (CERCLA)**

|  |  |  |
| --- | --- | --- |
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**CALIFORNIA PROPOSITION 65**

This product contains no listed substances known to the State of California to cause cancer, birth defects,or other reproductive harm, at levels which would require a warning under the statute.

**TSCA (TOXIC SUBSTANCE CONTROL ACT)**

**TSCA REGULATORY: All intentional ingredients are listed in the TSCA Inventory.**

**SECTION 16: OTHER INFORMATION**

**Prepared By:** QUANZHOU BIG FIR TREE IMPORT&EXPORT CO.,LTD

**Additional Comments: None.**

**Revision Date：03/08/2024**

**Changes Since Previous SDS: None**

**Other Information Disclaimer：**

The information contained herein is based upon data and information available to us, and reflects our best professional judgment. This product may be formulated in part with components purchased from other companies. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information. The results to be obtained from the use thereof, or that any such use does not infringe any patent, since the information contained herein may be applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assume responsibility for the results of such application. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular use.