

MATERIAL SAFETY DATA SHEET (MSDS)

1.0 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: PI-1005 (matrimid 5218)

MANUFACTURER/SUPPLIER: **Wuhan Ze Shan Cheng Biomedical Medicine Technology Co., Ltd.**

2.0 COMPOSITION/INFORMATION ON INGREDIENTS

| Component | Range % by Wt. |
|-----------|----------------|
| Polyimide | 100 |

3.0 HAZARDS IDENTIFICATION

EMERGENCY OVER VIEW: Caution! Handling and/or processing of this material may generate a dust, which can cause mechanical irritation of the eyes, skin, nose and throat. It is important that processing equipment be free of materials that decompose at temperatures below 510°C) cross-contamination with such materials may result in a violent release of fumes during processing.

POTENTIAL HEALTH EFFECTS:

EYE CONTACT: No significant health hazards identified. Particles or fibers may cause slight discomfort similar to getting dust in the eye.

SKIN CONTACT: No significant health hazards identified. Particles or fibers may cause slight discomfort similar to rubbing sand against the skin. Molten material causes severe thermal burns.

INHALATION: No significant irritation expected other than possible mechanical irritation.

INGESTION: No significant health hazards identified.

HMIS CODE:(Health:0)(Flammability:1)(Reactivity:0)

NFPA CODE: (Health:0)(Flammability:1)(Instability:0)

4.0 FIRST AID MEASURES

EYE: Flush eyes with plenty of water.

SKIN: Wash exposed skin with soap and water. For thermal burns, cool quickly with water and seek medical attention. Do not peel off solidified material.

INHALATION: If adverse effects occur, remove to uncontaminated area. Get medical attention.

INGESTION: If a large amount is swallowed, get medical attention.

5.0 FIRE FIGHTING MEASURES

FLASHPOINT: Non-flammable

UEL: Not determined.

LEL: Not determined.

AUTOIGNITION TEMPERATURE: 600°C

FLAMMABILITY CLASSIFICATION: Not Flammable.

INHALATION: No significant irritation expected other than possible mechanical.

To avoid, thoroughly clean molding and other processing equipment prior to changeover and prevent cross contamination of material handling systems.

High dust concentrations have a potential for combustion or explosion.

FIRE-FIGHTING EQUIPMENT: Firefighters should wear full bunker gear, including a positive pressure self-contained breathing apparatus.

6.0 ACCIDENTAL RELEASE MEASURES

Contain and remove by mechanical means. Vacuum or sweep out: avoid producing dust.

7.0 HANDLING AND STORAGE

HANDLING: Minimize dust generation and accumulation. Take appropriate measures to prevent static discharges, which may include thorough electrical interconnecting, grounding of equipment, and/or conveyance under inert gas.

STORAGE: No special requirements.

8.0 EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE: None required; however, use of eye protection is good industrial practice. Use dust goggles if high dust concentration generated.

SKIN: None required; however, use of protective gloves/clothing is good industrial practice.

INHALATION: None required; however, use of adequate ventilation is good industrial practice. If ventilation is inadequate, use NIOSH certified respirator that will protect against dust/mist. If heated and ventilation is inadequate, use a NIOSH-certified respirator which will protect against organic vapor and dust/mist.

ENGINEERING CONTROLS: No special controls necessary. If general ventilation is inadequate, local exhaust ventilation should be used to dispose of vapor from hot processing equipment.

9.0 CHEMICAL AND PHYSICAL PROPERTIES

APPEARANCE AND ODOR: Yellow powder.

PH: Not applicable.

VAPOR PRESSURE: Not applicable.

VAPOR DENSITY: Not applicable.

BOILING POINT: Not applicable.

MELT FLOW START TEMPERATUE: 340°C

SOLUBILITY IN WATER: Negligible, below 0.3%.

SPECIFIC GRAVITY (WATER=1): 1.4

SOFTENING POINT: 250°C

10. STABILITY AND REACTIVITY

STABILITY: Stable up to 580 °C , but prolonged exposure at temperatures in the 510-580°C range can result in severe degradation.

CONDITIONS TO AVOID: Avoid generating dust. High dust concentrations have a potential for combustion or explosion.

HAZARDOUS DECOMPOSITION: Thermal decomposition products include carbon monoxide, and/or carbon dioxide, and hydrocarbons, etc.

HAZARDOUS POLYMERIZATION: Will not occur.