杭州凯莫思生化科技有限公司
Kaimosi BioChem Tech Co., Ltd

Material Safety Data Sheet

Version: 1.0
Creation Date: May 12, 2021
Revision Date: May 12, 2023

Section 1: Identification

Product name: Terephthaloyl Chloride 99.9% min.

Other name: p-Phthaloyl chloride

CAS#: 100-20-9

Molecular Formula: $C_8H_4Cl_2O_2$

Molecular Weight: 203.0

Company name: Kaimosi BioChem Tech Co., Ltd

Company address: Suite# 80G, No. 1 Building, Guodu Development Mansion, No. 182 Zhaohui Road, Hangzhou China.

Phone Number: +86-571 87191913

Fax Number: +86-571 87562572

Section 2: Hazards Identification

Hazard Class: 8+6.1

Hazard Statements:

H314 - Causes severe skin burns and eye damage

H331 - Toxic if inhaled

Potential Health Effects：

Immediate effects of overexposure by inhalation may include irritation of the nose and throat with sneezing, sore throat or runny nose. Gross overexposure may cause irritation of nose, throat and lungs with cough, difficulty breathing or shortness of breath.Short-term overexposure by skin contact may include skin corrosion, burns or ulcers. Based on animal data, this material may cause skin sensitization with allergic rashes.

There are no reports of human sensitization. Significant skin permeation and systemic toxicity after contact appears unlikely. Immediate effects of overexposure by eye contact may include irritation with tearing, pain or blurred vision.that this material may cause cancer.

Increased susceptibility to the effects of this material may be observed in persons with preexisting disease of the lungs.

Carcinogenicity Information:

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

Precautionary Statements:

P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/ Take off immediately all

contaminated clothing. Rinse skin with water/ shower

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing

P310 - Immediately call a POISON CENTER or doctor/ physician

Section 3: Composition/Information on Ingredients

Chemical name: Terephthaloyl Chloride

Synonyms: TCI, p-Phthaloyl chloride, 1,4-Benzenedicarbonyl Dichloride.CAS#: 100-20-9

Molecular Formula: $C_8H_4Cl_2O_2$

Molecular Weight: 203.0

Concentration：99.9% min

Section 4: First-Aid Measures

In case of eyes contact: Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

In case of skin contact: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required.

Ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person. Drink plenty of water. Call a physician immediately. If possible drink milk afterwards.

Inhalation: Remove from exposure, lie down. Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Immediate medical attention is required.

Section 5: Fire-Fighting Measures

Flammable Properties
Flash Point : 180 C (356 F)
Method : SFCC

Fire and Explosion Hazards:

OSHA Class III B Combustible Material. Hazardous gas produced in a fire is mainly hydrogen chloride. Follow appropriate National Fire Protection Association (NFPA) codes.

Extinguishing Media

Water Spray, Water Fog, Dry Chemical, Alcohol Resistant Foam, CO2.Water will react with terephthaloyl chloride to release hydrogen chloride. For large fires use water spray, or foam with caution.

Fire Fighting Instructions

Water spray or foam may cause frothing, use with caution.Use water spray to cool containers. Exposure to water or intense heat will release hazardous hydrogen chloride gas and insoluble terephthalic acid, both of which can cause lung irritation. Evacuate affected area. Stay upwind and avoid smoke and fumes. Where contact with smoke and fumes cannot be avoided, wear chemical-proof suit with hood and breathing air supply.

Section 6: Accidental Release Measures

Personal precautions: Use proper personal protective equipment to prevent the contamination of skin, eyes, and clothing.

Emergency procedures, method and material used for containment: Absorb spill with a dry absorbent. Do not soak up with sand or soil as these materials contain water and can cause HCL release. Place in closed plastic containers for disposal. Do not put disposal in any kind of iron containers since HCL will react with metal. Wash spilled area with detergent or water with soda.

Section 7: Handling and Storage

Handling: Wear chemical safety goggles and rubber gloves. Wash thoroughly after handling. Avoid breathing dust, vapor, mist, or gas. Use only in a well-ventilated area. Do not ingest or inhale. Avoid contact with skin and eyes. Wash contaminated clothing before reuse.

Storage: Recommend store in a tightly closed container and a cool, dry, well-ventilated area.

Section 8: Exposure Controls/personal Protection

Exposure and engineering Controls: Manufacturer prepared the safety data sheet in the workshop and use local exhaust ventilation.Regular inspections by staff to ensure work safety.

Personal Protective Equipment

General Information: Do not heat cast material in water bath since contact with moisture will release hydrogen chloride. Wear as appropriate to prevent all skin or eye contact.

Eyes: Wear chemical safety goggles to avoid eyes contact.

Skin: Wear rubber groves, pant and jack to prevent all skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure, and wash contaminated clothing before reuse.

Respirators: DO NOT breathe vapor. Keep tightly closed and place in a cool dry area.

Section 9: Physical and Chemical Properties

Color: White. Appearance: Solid, crystalline (flakes or cast solid)

Odor: Pungent. Odor threshold: N/A

pH: Less than 0.5 (Forms hydrochloric acid in water)

Melting point: 81.5-83° C (178.7-181 F)

Boiling Point: 265 C (509 F) @ 760 mm Hg

Vapor Pressure: 0.02 mm Hg @ 25 C (77 F) 0.06 mm Hg @ 38 C (100 F)

Vapor Density: 7 (Air=1.0) Evaporation Rate : <1 (Butyl Acetate=1.0)

Solubility in Water : Decomposes, releasing hydrogen chloride

Partition coefficient - n-octanol/water: N/A

Specific Gravity : 1.34 @ 100 C (212 F)

Flash point: 356° F/180℃

Flammability: Not flammable

Upper/lower flammability or explosive limits: Not flammable/explosive

Viscosity: N/A

Auto-ignition temperature: N/A

Section 10: Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Incompatibilities: Not reacts with other materials but reacts vigorously with water or moisture in air and release HCL.

Decomposition: High temperatures or contact with moisture will release hydrogen chloride.

Section 11: Toxicological Information

Animal Data
Terephthaloyl Chloride:
Skin LD50, rabbit: > 3,160 mg/kg
Ingestion ALD, rat: 3,400 mg/kg
Inhalation 4 hour, LC50, rat: 0.7 mg/L

Animal testing indicates this material is an eye irritant.
Animal testing indicates this material is corrosive to the skin, and is a skin sensitizer. Single inhalation exposure caused pathological changes of the lungs and labored breathing. Repeated exposure caused reduced weight gain and pathological changes of the lungs. This material has not produced genetic damage in bacterial cultures. No animal data are available to define the following effects of this material: carcinogenicity, developmental toxicity, reproductive toxicity.

Section 12: Ecological Information

Eco-toxicity: N/A
Environmental: N/A

Physical: N/A

Section 13: Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste, and consult local hazardous waste regulations to ensure complete and accurate classification. This product may be a RCRA Hazardous Waste upon disposal due to the reactivity characteristic.

Comply with Federal, State, and local regulations.

Section14: Transport Information

DOT - FOR TANK TRUCK SHIPMENTS ONLY:

Proper Shipping Name : HOT CORROSIVE LIQUID, TOXIC,

N.O.S.(TEREPHTHALOYL CHLORIDE)

Hazard Class : 8

UN No. : 2923

Packaging Group : II

Subsidiary Class : 6.1

Label :Corrosive, Poison

DOT - FOR NON-BULK AND ALL IMO/IATA:

Proper Shipping Name : CORROSIVE SOLID, TOXIC,

N.O.S.(TEREPHTHALOYL CHLORIDE)

Hazard Class : 8

UN No. : 2923

Packaging Group : II

Subsidiary Class : 6.1

Label: Corrosive, Poison

Section 15: Regulatory Information

Harmful if swallowed. Irritating to eyes and skin. Harmful to aquatic organisms; may cause long term adverse effects in the aquatic environment.

U.S. Federal Regulations:

TSCA Inventory Status: Reported/Included.
TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312
Acute: Yes
Chronic: Yes
Fire: No
Reactivity: Yes
Pressure: No
Hazardous Substance - No
Safety phrases: S61. Avoid release to the environment. Refer to special instructions/Safety data sheets.
Local regulations: It is user's responsibility to comply with the local laws and regulations.

Section 16: Other Information

The information above is believed to be accurate and represents the best information currently available to us. It does not purport to be all-inclusive and shall be used only as a guide. Kaimosi BioChem Tech Co., Ltd shall not be held liable for any damage resulting from handling or from contact with the above product.