

Material Safety Data Sheet

Section 1 - SUBSTANCE/PREPARATION AND COMPANY IDENTIFICATION

Product Name: CHNY-PHTHALIC ANHYDRIDE FLAKES(Maleic anhydride <0.05%)

Chemical family: acid anhydrides, aromatic

Synonyms: Phthalic Anhydride

Company Contact : TENOIT CO., LTD.

Room 4, 5FL., No. 109, Sec. 6, Mingquan East Road, Taipei, Taiwan

EMERGENCY TELEPHONE NUMBER : TEL (886) 2 8792-2185 8792-2187

FAX (886) 2 8792-2151

Section 2 - HARZARDOUS INGREDIENTS

CAS Number	Content(W/W)	Hazardous ingredients
85-44-9	$\geq 60.0 - \leq 100.0\%$	Phthalic anhydride

Section 3 - HAZARDS IDENTIFICATION

Emergency overview

IRRITANT. SENSITIZER. Irritating to eyes, respiratory system and skin.

May cause sensitization by skin contact.

Potential health effects

Acute toxicity:

Of moderate toxicity after single ingestion. Virtually nontoxic after a single skin contact.

Irritation:

Irritating to respiratory system and skin. May cause severe damage to the eyes.

Sensitization:

The substance may cause sensitization of the respiratory tract. Sensitization after skin contact possible.

Repeated dose toxicity:

No substance-specific organotoxicity was observed after repeated administration of high doses to animals.

Potential environmental effects

Aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms.

The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Section 4 - FIRST AID MEASURES

General advice:

Immediately remove contaminated clothing. If danger of loss of consciousness, place patient in recovery position and transport accordingly. Apply artificial respiration if necessary. First aid personnel should pay attention to their own safety.

If inhaled:

Keep patient calm, remove to fresh air. Assist in breathing if necessary. Consult a physician.

If on skin:

Wash affected areas thoroughly with soap and water. Remove contaminated clothing. If irritation develops, seek medical attention.

If in eyes:

Material Safety Data Sheet

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Immediate medical attention required.

If swallowed:

Rinse mouth and then drink plenty of water. Do not induce vomiting. Immediate medical attention required.

Note to physician

Symptoms: Overexposure may cause:, asthma, atrophy of the nasal mucosa, bloody diarrhea, bronchitis, conjunctivitis, hoarseness, emphysema, coughing

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

Section 5 - FIRE FIGHTING MEASURES

Flash point: 152 °C

Autoignition: not applicable

Flammability: not self-igniting (other)

Self-ignition temperature: (other) not self-igniting, The value has not be determined because of the low risk of self-ignition in consequence of the low melting point.

Suitable extinguishing media: dry extinguishing media, foam, carbon dioxide

Protective equipment for fire-fighting: Wear a self-contained breathing apparatus.

Further information: Keep containers cool by spraying with water if exposed to fire.

Fire debris must be disposed of in accordance with official regulations.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid inhalation. Avoid contact with the skin, eyes and clothing.

Environmental precautions: Discharge into the environment must be avoided.

Cleanup: Avoid raising dust.

For small amounts: Protect from water. Sweep/shovel up.

For large amounts: Protect from water. Sweep/shovel up.

Section 7 - HANDLING AND STORAGE

Handling

General advice:

Ensure thorough ventilation of stores and work areas.

Take precautionary measures against static discharges. Keep away from sources of ignition - No smoking.

Protection against fire and explosion:

Avoid dust formation. Dust can form an explosive mixture with air. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy. Electrical devices must meet the specified temperature class.

Storage

General advice: Protect against moisture. Containers should be stored tightly sealed in a dry place.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

phthalic anhydride OSHA PEL 2 ppm 12 mg/m³ ;
 ACGIH TWA value 1 ppm ;

Material Safety Data Sheet

Personal protective equipment

Respiratory protection: Wear the following respiratory protection if exposure limits may be exceeded: Wear a NIOSH-certified (or equivalent) respirator as necessary.

Hand protection: Chemical resistant protective gloves.

Eye protection: Tightly fitting safety goggles (chemical goggles) and face shield.

Body protection: Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures: Do not breathe vapour/spray. Avoid contact with the skin, eyes and clothing. Wearing of closed work clothing is required additionally to the stated personal protection equipment. Wash soiled clothing immediately.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Form: flocks

Odour: acidic

Odour threshold: No data available.

Colour: white

pH value: 2 (6 g/l, 20 °C)

Melting point: 131.3 °C (other)

Boiling point: 284.8 °C (1,013.25 hPa) (other)

Vapour pressure: 0.00069 hPa (25 °C) (measured) Literature data.

Density: 1.53 g/cm³ (20 °C) (other) Literature data.

Bulk density: 500 - 700 kg/m³

Partitioning coefficient 0.73

n-octanol/water (log Pow):

Viscosity, dynamic: not applicable

Viscosity, kinematic: not applicable

Solubility in water: 6.200 g/l (25 °C) Literature data.

Section 10 - STABILITY AND REACTIVITY

Substances to avoid: Alkalines, water, amines, alcohols, amine compounds.

Oxidizing properties: Based on its structural properties the product is not classified as oxidizing. (other)

Section 11 - TOXICOLOGICAL INFORMATION

Acute toxicity

Oral: LD₅₀/rat: 1,530 mg/kg Literature data.

Inhalation: LCLo/rat: 0.547 mg/l / 10 min

Dermal: LD₅₀/rabbit: > 10,000 mg/kg

Skin irritation: rabbit: Irritant. (OECD Guideline 404)

Eye irritation : rabbit: Risk of serious damage to eyes. (Draize test)

Sensitization: Mouse Local Lymph Node Assay (LLNA)/mouse: sensitizing Literature data.

Chronic toxicity

Genetic toxicity: No mutagenic effect was found in various tests with bacteria and mammalian cell culture.

Carcinogenicity: In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed.

Section 12 - ECOLOGICAL INFORMATION

Environmental fate and transport

Biodegradation:

Test method: OECD 301C; ISO 9408; 92/69/EEC, C.4-F (aerobic), Inoculum conforming to MITI

Method of analysis: BOD of the ThOD

Degree of elimination: 85 % (14 d)

Evaluation: Readily biodegradable (according to OECD criteria).

Bioaccumulation: No significant accumulation in organisms is expected as a result of the distribution coefficient of n-octanol/water (log Pow).

Environmental toxicity

Acute and prolonged toxicity to fish:

OECD Guideline 203 semistatic

zebra fish/LC50 (7 d): 560 mg/l

The details of the toxic effect relate to the nominal concentration.

Acute toxicity to aquatic invertebrates:

static Daphnia magna/EC50 (48 h): > 640 mg/l

The product has not been tested. The statement has been derived from products of a similar structure and composition. The details of the toxic effect relate to the nominal concentration.

Toxicity to aquatic plants:

OECD Guideline 201 static

green algae/No observed effect concentration (72 h): > 100 mg/l

The product has not been tested. The statement has been derived from products of a similar structure and composition. The statement of the toxic effect relates to the analytically determined concentration.

Toxicity to microorganisms:

DIN EN ISO 8192 activated sludge/EC50 (3 h): > 1,000 mg/l

Other ecotoxicological advice:

Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations. Do not release untreated into natural waters.

Section 13 - DISPOSAL CONSIDERATIONS

Waste disposal of substance:

Must be dumped or incinerated in accordance with local regulations.

A waste code in accordance with the European waste catalog (EWC) cannot be specified, due to dependence on the usage.

Container disposal:

Uncleaned empties should be disposed of in the same manner as the contents.

Section 14 - TRANSPORT INFORMATION

Land transport

TDG Not classified as a dangerous good under transport regulations

Sea transport

IMDG Not classified as a dangerous good under transport regulations

The maleic anhydride content is less than 0.05%

Material Safety Data Sheet

Section 15 - REGULATORY INFORMATION

Federal Regulations

Registration status:

DSL, CA released / listed

WHMIS classification: D2B: Materials Causing Other Toxic Effects - Toxic material
THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CPR
AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.

Section 16- OTHER INFORMATION

NIOSH/OSHA , Occupational Health Guidelines for Chemical Hazards , 1981

Disclaimer :The information contained herein is based upon data believed to be reliable and reflects our best professional judgment. It is the responsibility of the user to determine the suitability of the material for their purpose. No warranty is expressed or implied, is given.