



Material Safety Data Sheet

Section 1 - Product and Company Information

Substance : TRIMETHYLACETYL CHLORIDE Trade Name : Pivaloyl Chloride Chemical
Family : Acid Chloride
Company : Foreschem Co.,ltd.
NO.37 JINQIAO ROAD, ZHANGDIAN DISTRICT,ZIBO,SHANDONG,CHINA
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Section 2 - Composition / Information on Ingredients

Product Name	CAS No.	EC No.	Mol. Formula	Mol. Wt.
Pivaloyl Chloride	3282-30-2	221-921-6	C ₅ H ₉ ClO	120.58 g/mol

Section 3 – Hazards Identification

Emergency Overview:

Causes burns, Moisture sensitive

Potential Health Effect:

Eye : Causes eye burns. Lachrymator (substance with increase the flow of tears) Skin : Causes skin burns. Ingestion : Causes gastrointestinal tract burns. Inhalation : May cause sever irritation of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung edema. Causes chemical burns to the respiratory tract.

Section 4 – First Aid Measures

AFTER INHALATION

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

AFTER SKIN CONTACT

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

AFTER EYE CONTACT

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure



adequate flushing by separating the eyelids with fingers. Call a physician.

AFTER INGESTION

If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately. Do not induce vomiting.

Section 5 – Fire Fighting Measures CONDITIONS OF FLAMMABILITY

Water hydrolyzes material liberating acidic gas which in contact with metal surfaces can generate flammable and/or explosive hydrogen gas.

EXTINGUISHING MEDIA

Suitable: Carbon dioxide, dry chemical powder, or appropriate foam.

Unsuitable: Do not use water.

SPECIAL RISKS

Specific Hazard(s): Flammable liquid. Vapor may travel considerable distance to source of ignition and flash back. Emits toxic fumes under fire conditions.

Explosion Hazards: Vapor may travel considerable distance to source of ignition and flash back. Container explosion may occur under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Section 6 – Accidental Release Measures PERSONAL PRECAUTION PROCEDURES TO BE

FOLLOWED IN CASE OF LEAK OR SPILL



Evacuate area. Shut off all sources of ignition.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP

Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

HANDLING

Directions for Safe Handling: Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

STORAGE

Conditions of Storage: Keep tightly closed. Keep away from heat, sparks, and open flame. Store in a cool dry place. Incompatible Materials: Do not allow contact with water

Section 8 -Exposure Controls / Personal Protection

ENGINEERING CONTROLS

Safety shower and eye bath. Use nonsparking tools. Use only in a chemical fume hood.

GENERAL HYGIENE MEASURES

Wash contaminated clothing before reuse. Wash thoroughly after handling. Discard contaminated shoes.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

Hand Protection: Compatible chemical-resistant gloves. **Eye Protection:** Chemical safety goggles.

Special Protective Measures: Faceshield (8-inch minimum).



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Section 9 - Physical and Chemical Properties

Appearance Color : Colorless Form : Clear liquid Odor : Unpleasant odor

Property

pH : N/A BP/BP Range : 105.0 - 108.0 °C MP/MP Range : - 56.0

°C Flash Point : 19 °C Method: closed cup Flammability : N/A

Autoignition Temp : 455 °C Oxidizing Properties : N/A Explosive

Properties : N/A Explosion Limits Lower : 1.9 %

Upper : 7.4 % Vapor Pressure : 40 mbar at 20 °C SG/Density : 0.98 g/cm³
Partition Coefficient : Log Kow: 1.8 Viscosity : 0.86 Pas at 20 °C Vapor Density : > 1 g/l Saturated
Vapor Conc. : N/A Evaporation Rate : N/A Bulk Density : N/A Decomposition Temp. : N/A
Solvent Content : N/A Water Content : N/A Surface Tension : N/A Conductivity : N/A
Miscellaneous Data : N/A Solubility : N/A

Section 10 - Stability and Reactivity

STABILITY:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Do not allow water to enter container because of violent reaction.

Materials to Avoid:

Alcohols, Oxidizing agents, Strong bases.

HAZARDOUS DECOMPOSITION PRODUCTS

Carbon monoxide, Carbon dioxide, Hydrogen chloride gas, Phosgene gas.

HAZARDOUS POLYMERIZATION:

Will not occur

Section 11 - Toxicological Information

ACUTE TOXICITY



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LD50 Oral Rat 920 mg/kg

LD50 Skin Rat 3,000 mg/kg

LC50 Inhalation Rat 500 mg/m3

LD50 Oral Rat 1,500 mg/kg

IRRITATION DATA

Eyes Rabbit Remarks: Severe irritation effect

Skin Rabbit Remarks: Severe irritation effect

SIGNS AND SYMPTOMS OF EXPOSURE

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

ROUTE OF EXPOSURE

Skin Contact:

Causes burns.

Skin Absorption:

May be harmful if absorbed through the skin.

Eye Contact:

Causes burns. Lachrymator.

Inhalation:

Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. May be fatal if inhaled.

Ingestion:

Harmful if swallowed.

Section 12 -Ecological Information



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ECOTOXICOLOGICAL EFFECTS

Test Type : LC50 Fish Species : Onchorhynchus mykiss (Rainbow trout) Time : 96 h Value : > 300 mg/l
Test Type : EC50 Daphnia

Species : Daphnia magna Time : 24 h Value : 320 mg/l Test Type : EC50 Algae Species :
Scenedesmus subspicatus Time : 96 h Value : 75 mg/l

Section 13 - Disposal Considerations

SUBSTANCE DISPOSAL

Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT Regulations

UN No. : 2438 Hazard Class : 6.1 PG :I Poison Inhalation Hazard : Yes Subrisk : 3, 8
Proper Shipping Name : Trimethylacetyl chloride Label : 6.1+ 3 + 8

RID/ADR

UN No. : 2438 Hazard Class : 6.1 PG :I Subrisk : 3, 8 Proper Shipping Name :
Trimethylacetyl chloride

IMDG

UN No. : 2438 Hazard Class : 6.1 PG :I Subrisk : 3, 8 Proper Shipping Name :
TRIMETHYL ACETYL CHLORIDE Marine Pollutant : No Severe Marine Pollutant : No

IATA

UN No. : 2438 Hazard Class : 6.1 PG :I Subrisk : 3, 8 Proper Shipping Name :
Trimethylacetyl chloride Inhalation Packing Group I : Yes



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Section 15 -Regulatory Information

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

INDICATION OF DANGER: F-T+

Highly Flammable. Very toxic.

R-PHRASES: 11-14-22-34-26 Highly flammable. Reacts violently with water. Harmful if swallowed. Causes burns. Very toxic by inhalation.

S-PHRASES: 16-26-36/37/39-45 Keep away from sources of ignition -no smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Section 16 - Other Information

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Foreschem Co. Ltd., shall not be held liable for any damage resulting from handling or from contact with the above product.