



# SAFETY DATA SHEET

**Creation Date** 21-Feb-2012

Revision Date 18-Dec-2025

## Revision Number 5

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200)

## 1. Identification

|                             |  |
|-----------------------------|--|
| <b>Product Name</b>         | <b>p-Toluoyl chloride</b>  |
| <b>Cat No. :</b>            | <b>AC147980000; AC147980010; AC147980025; AC147980050;<br/>AC147982500</b> |
| <b>CAS No</b>               | 874-60-2   |
| <b>Synonyms</b>             | 4-Methylbenzoyl chloride   |
| <b>Recommended Use</b>      | Laboratory chemicals.  |
| <b>Uses advised against</b> | Food, drug, pesticide or biocidal product use.                             |

## **Details of the supplier of the safety data sheet**

**Company**  
Fisher Scientific Company  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

### **Emergency Telephone Number**

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

## 2. Hazard(s) identification

## Classification

**Classification:** This chemical is considered hazardous according to [US] OSHA (29 CFR 1910.1200, 2024).

|                                   |              |
|-----------------------------------|--------------|
| Flammable liquids                 | Category 4   |
| Skin Corrosion/Irritation         | Category 1 B |
| Serious Eye Damage/Eye Irritation | Category 1   |

## Label Elements

## Signal Word

## Danger

## Hazard Statements

### Combustible liquid

Causes severe skin burns and eye damage

**Precautionary Statements****Prevention**

Do not breathe dust/fume/gas/mist/vapors/spray

Wash face, hands and any exposed skin thoroughly after handling

Wear protective gloves/protective clothing/eye protection/face protection

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

**Response**

Immediately call a POISON CENTER or doctor

**Inhalation**

IF INHALED: Remove person to fresh air and keep comfortable for breathing

**Skin**

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower

Take off contaminated clothing and wash before reuse

**Eyes**

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

**Ingestion**

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

**Fire**

In case of fire: Use CO<sub>2</sub>, dry chemical, or foam to extinguish

**Storage**

Store locked up

Store in a well-ventilated place. Keep cool

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

None identified

**Hazards classified under paragraph (d)(1)(ii) of 1910.1200**

No information available

**3. Composition/information on Ingredients**

| Component                   | CAS No   | Weight % |
|-----------------------------|----------|----------|
| Benzoyl chloride, 4-methyl- | 874-60-2 | >95      |

**4. First-aid measures****Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

**Skin Contact**

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

**Inhalation**

Remove from exposure, lie down. Remove to fresh air.

**Ingestion**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Drink plenty of water. If possible drink milk afterwards.

**Most important symptoms and**

Difficulty in breathing. Causes burns by all exposure routes. Symptoms of overexposure

|                           |  |
|---------------------------|--|
| <b>effects</b>            | may be headache, dizziness, tiredness, nausea and vomiting: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation |
| <b>Notes to Physician</b> | Treat symptomatically  |

## 5. Fire-fighting measures

**Suitable Extinguishing Media** Carbon dioxide (CO<sub>2</sub>). Dry chemical. Chemical foam.

**Unsuitable Extinguishing Media** No information available

**Flash Point** 82 °C / 179.6 °F

**Method -** No information available

**Autoignition Temperature** No information available

**Explosion Limits**

**Upper** No data available

**Lower** No data available

**Sensitivity to Mechanical Impact** No information available

**Sensitivity to Static Discharge** No information available

### Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

### Hazardous Combustion Products

Thermal decomposition can lead to release of irritating gases and vapors. Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Phosgene. Hydrogen chloride gas.

### Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

### NFPA

Health  
3

Flammability  
1

Instability  
0

Physical hazards  
N/A

## 6. Accidental release measures

**Personal Precautions** Ensure adequate ventilation. Use personal protective equipment as required.

**Environmental Precautions** See Section 12 for additional Ecological Information.

**Methods for Containment and Clean Up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Sweep up and shovel into suitable containers for disposal.

## 7. Handling and Storage

### Handling

Avoid contact with skin and eyes. Avoid contact with skin and clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Avoid breathing vapors or mists. Do not ingest. If swallowed then seek immediate medical assistance. Wash thoroughly after handling.

### Storage.

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Corrosives area. Incompatible Materials. Water. Strong bases. Alcohols. Oxidizing agent.

## 8. Exposure controls / personal protection

### Exposure Guidelines

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Engineering Measures** Ensure adequate ventilation, especially in confined areas. Ventilation systems.

**Personal Protective Equipment**

**Eye/face Protection** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection** Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

**Appearance**

|  |                               |  |
|--|-------------------------------|--|
| <b>Physical State</b>                          | Liquid                        |  |
| <b>Color</b>                                   | Light brown                   |  |
| <b>Odor</b>                                    | pungent                       |  |
| <b>Odor Threshold</b>                          | No information available      |  |
| <b>Property</b>                                | <b>Values</b>                 | <b>Remarks</b>                           |
| <b>Melting Point/Range</b>                     | -2 °C / 28.4 °F               |  |
| <b>Softening Point</b>                         | No data available             |  |
| <b>Boiling Point/Range</b>                     | 225 - 227 °C / 437 - 440.6 °F |  |
| <b>Flash Point</b>                             | 82 °C / 179.6 °F              | <b>Method</b> - No information available |
| <b>Flammability (liquid)</b>                   | Combustible liquid            | On basis of test data                    |
| <b>Flammability (solid,gas)</b>                | No information available      |  |
| <b>Explosion Limits</b>                        | No data available             |  |
| <b>Autoignition Temperature</b>                | No data available             |  |
| <b>Decomposition Temperature</b>               | No data available             |  |
| <b>pH</b>                                      | No information available      |  |
| <b>Viscosity</b>                               | No data available             |  |
| <b>Water Solubility</b>                        | decomposes                    |  |
| <b>Solubility in other solvents</b>            | No information available      |  |
| <b>Partition Coefficient (n-octanol/water)</b> | 2 mmHg @ 20 °C                |  |
| <b>Vapor Pressure</b>                          | 1.160                         |  |
| <b>Density / Specific Gravity</b>              | No data available             |  |
| <b>Bulk Density</b>                            | 5.33                          | (Air = 1.0)                              |
| <b>Vapor Density</b>                           | Not applicable (liquid)       |  |
| <b>Particle characteristics</b>                |                               |  |
| <b>Other Information</b>                       |                               |  |
| <b>Molecular Formula</b>                       | C8 H7 Cl O                    |  |
| <b>Molecular Weight</b>                        | 154.6                         |  |

## 10. Stability and reactivity

**Reactive Hazard** None known, based on information available

**Stability** Stable under normal conditions. Moisture sensitive.

**Conditions to Avoid** Incompatible products.

**Incompatible Materials** Water, Strong bases, Alcohols, Oxidizing agent

**Hazardous Decomposition Products** Thermal decomposition can lead to release of irritating gases and vapors, Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Phosgene, Hydrogen chloride gas

**Hazardous Polymerization** No information available.

**Hazardous Reactions** None under normal processing.

## 11. Toxicological information

### Information on expected route of exposure

**Inhalation** Not an expected route of exposure.

**Ingestion** May be harmful if swallowed.

**Eyes** Avoid contact with eyes. Corrosive to the eyes and may cause severe damage including blindness. Lachrymator (substance which increases the flow of tears).

**Skin** Avoid contact with skin. Causes burns. Skin Corrosion/Irritation.

### Toxicology data for the components

**Toxicologically Synergistic Products** No information available

**(b) skin corrosion/irritation;** No data available

**(c) serious eye damage/irritation;** No data available

**(d) respiratory or skin sensitization;**  
**Respiratory** No data available  
**Skin** No data available

**(e) germ cell mutagenicity;** No data available

**(f) carcinogenicity;**

The table below indicates whether each agency has listed any ingredient as a carcinogen

| Component                   | CAS No   | IARC       | NTP        | ACGIH      | OSHA       | Mexico     |
|-----------------------------|----------|------------|------------|------------|------------|------------|
| Benzoyl chloride, 4-methyl- | 874-60-2 | Not listed |

**(g) reproductive toxicity;** No data available

**(h) STOT-single exposure;** No data available

**(i) STOT-repeated exposure;** No data available

**Target Organs** No information available.

**(j) aspiration hazard;** No data available

**Symptoms / effects, both acute and delayed** Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

**Other Adverse Effects** The toxicological properties have not been fully investigated.

**Endocrine Disrupting Properties** This product does not contain any known or suspected endocrine disruptors.

## 12. Ecological information

**Ecotoxicity**

Do not empty into drains.

**Persistence and Degradability** No information available

**Bioaccumulation/ Accumulation** No information available.

**Mobility** No information available.

## 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## 14. Transport information

**DOT**

**UN-No** UN3265  
**Technical Shipping Name** Benzoyl chloride, 4-methyl-  
**Hazard Class** 8  
**Packing Group** II

**TDG**

**UN-No** UN3265  
**Technical Shipping Name** Benzoyl chloride, 4-methyl-  
**Hazard Class** 8  
**Packing Group** II

**IATA**

**UN-No** UN3265  
**Proper Shipping Name** Corrosive liquid, acidic, organic, n.o.s.  
**Technical Shipping Name** Benzoyl chloride, 4-methyl-  
**Hazard Class** 8  
**Packing Group** II

**IMDG/IMO**

**UN-No** UN3265  
**Proper Shipping Name** Corrosive liquid, acidic, organic, n.o.s.  
**Technical Shipping Name** Benzoyl chloride, 4-methyl-  
**Hazard Class** 8  
**Packing Group** II

## 15. Regulatory Information

**United States of America Inventory**

| Component                   | CAS No   | TSCA | TSCA Inventory notification - Active-Inactive | TSCA - EPA Regulatory Flags |
|-----------------------------|----------|------|---|-----------------------------|
| Benzoyl chloride, 4-methyl- | 874-60-2 | X    | ACTIVE  | -                           |

Legend:

**TSCA** US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)  
X - Listed  
- - Not Listed

**TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)** Not applicable

**TSCA 12(b) - Notices of Export** Not applicable

#### **International Inventories**

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

| Component                   | CAS No   | DSL | NDSL | EINECS    | PICCS | ENCS | ISHL | AICS | IECSC | KECL     |
|-----------------------------|----------|-----|------|-----------|-------|------|------|------|-------|----------|
| Benzoyl chloride, 4-methyl- | 874-60-2 | -   | X    | 212-864-8 | X     | X    | X    | -    | X     | KE-23506 |

**KECL** - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

#### **U.S. Federal Regulations**

##### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

##### **SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)** Not applicable

**Clean Air Act** Not applicable

**OSHA - Occupational Safety and Health Administration** Not applicable

##### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**California Proposition 65** This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations** Not applicable

##### **U.S. Department of Transportation**

Reportable Quantity (RQ): N  
DOT Marine Pollutant N  
DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security** This product does not contain any DHS chemicals.

#### **Other International Regulations**

Mexico - Grade

No information available

## Authorisation/Restrictions according to EU REACH

Not applicable

| Component                   | CAS No   | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|-----------------------------|----------|---|---|---|
| Benzoyl chloride, 4-methyl- | 874-60-2 | -   | -   | -   |

## Safety, health and environmental regulations/legislation specific for the substance or mixture

| Component                   | CAS No   | OECD HPV       | Persistent Organic Pollutant | Ozone Depletion Potential | Restriction of Hazardous Substances (RoHS) |
|-----------------------------|----------|----------------|------------------------------|---------------------------|--|
| Benzoyl chloride, 4-methyl- | 874-60-2 | Not applicable | Not applicable               | Not applicable            | Not applicable                             |

Contains component(s) that meet a 'definition' of per &amp; poly fluoroalkyl substance (PFAS)?

Not applicable

## Other International Regulations

| Component                   | CAS No   | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements | Rotterdam Convention (PIC) | Basel Convention (Hazardous Waste) |
|-----------------------------|----------|---|--|----------------------------|------------------------------------|
| Benzoyl chloride, 4-methyl- | 874-60-2 | Not applicable  | Not applicable   | Not applicable             | Not applicable                     |

## 16. Other Information

## Prepared By

Product stewardship (Regulatory Affairs)  
 Thermo Fisher Scientific  
 email - begel.sdsdesk@thermofisher.com

## Creation Date

21-Feb-2012

## Revision Date

18-Dec-2025

## Print Date

18-Dec-2025

## Revision Summary

Updated to the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) which published its Final Rule in the Federal Register revising the Hazard Communication Standard (HCS/HazCom), 29 CFR 1910.1200 (2024) (HCS §1910.1200, 2024), May 20, 2024, effective July 19, 2024.

## Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS