

ALFAAB23571

# **3-Methoxybenzoyl chloride**

## SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

| 产品说明:                      | 3-甲氧基苯甲酰氯, 99%  |
|----------------------------|---|
| Product Description:       | 3-Methoxybenzoyl chloride   |
| Cat No. :                  | B23571  |
| Synonyms                   | 3-Methoxybenzoylchloride  |
| CAS No                     | 1711-05-3   |
| Molecular Formula          | C8 H7 CI O2   |
| Supplier                   | Avocado Research Chemicals Ltd.<br>(Part of Thermo Fisher Scientific)<br>Shore Road, Heysham<br>Lancashire, LA3 2XY,<br>United Kingdom<br>Office Tel: +44 (0) 1524 850506<br>Office Fax: +44 (0) 1524 850608  |
| Emergency Telephone Number | For information <b>US</b> call: 001-800-227-6701 / <b>Europe</b> call: +32 14 57 52 11<br>Emergency Number <b>US:</b> 001-201-796-7100 / <b>Europe:</b> +32 14 57 52 99<br><b>CHEMTREC</b> Tel. No. <b>US:</b> 001-800-424-9300 / <b>Europe:</b> 001-703-527-3887 |
| E-mail address             | begel.sdsdesk@thermofisher.com  |
| Recommended Use            | Laboratory chemicals.   |
| Uses advised against       | No Information available  |

## **SECTION 2. HAZARD IDENTIFICATION**

| Physical State   | Appearance | Odor                     |
|--|------------|--------------------------|
| Liquid   | Clear      | No information available |
| Emergency Overview<br>Combustible liquid. Causes severe skin burns and eye damage. May cause respiratory irritation. Moisture sensitive. Lachrymator<br>(substance which increases the flow of tears). |            |                          |

## Classification of the substance or mixture

| Flammable liquids.                                 | Category 4   |
|--|--------------|
| Skin Corrosion/Irritation                          | Category 1 B |
| Serious Eye Damage/Eye Irritation                  | Category 1   |
| Specific target organ toxicity - (single exposure) | Category 3   |

Label Elements



## 3-Methoxybenzoyl chloride

## Signal Word

Danger

## Hazard Statements

H227 - Combustible liquid H314 - Causes severe skin burns and eye damage H335 - May cause respiratory irritation

## Precautionary Statements

## Prevention

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

- P280 Wear protective gloves/protective clothing/eye protection/face protection
- P264 Wash face, hands and any exposed skin thoroughly after handling
- P271 Use only outdoors or in a well-ventilated area

### Response

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

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

do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor

P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

P362 + P364 - Take off contaminated clothing and wash it before reuse

## Storage

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

## Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

## **Physical and Chemical Hazards**

Combustible material.

### Health Hazards

Corrosive. Causes skin and eye burns. May cause respiratory irritation.

## **Environmental hazards**

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

### Other Hazards

Lachrymator (substance which increases the flow of tears)

This product does not contain any known or suspected endocrine disruptors.

## **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

| Component          | CAS No    | Weight % |
|--------------------|-----------|----------|
| m-Anisoyl chloride | 1711-05-3 | >95      |

## **SECTION 4. FIRST AID MEASURES**

### Eye Contact

Immediate medical attention is required. 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. Immediate medical attention is required.

### Inhalation

Remove from exposure, lie down. Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. 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.

## 3-Methoxybenzoyl chloride

## Most important symptoms and effects

Difficulty in breathing. Causes burns by all exposure routes. . 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

## Self-Protection of the First Aider

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

## Notes to Physician

Treat symptomatically.

## **SECTION 5. FIRE-FIGHTING MEASURES**

### Suitable Extinguishing Media

Carbon dioxide (CO<sub>2</sub>). Dry chemical. Do not use a solid water stream as it may scatter and spread fire. Water mist may be used to cool closed containers.

## Extinguishing media which must not be used for safety reasons

No information available.

## Specific Hazards Arising from the Chemical

Combustible material. Flammable. Containers may explode when heated.

### **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.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions

Remove all sources of ignition. Take precautionary measures against static discharges.

### **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. Remove all sources of ignition.

Refer to protective measures listed in Sections 8 and 13.

## **SECTION 7. HANDLING AND STORAGE**

### Handling

Do not breathe mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Handle product only in closed system or provide appropriate exhaust ventilation. Keep away from open flames, hot surfaces and sources of ignition.

### Storage

Keep away from heat, sparks and flame. Corrosives area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep containers tightly closed in a dry, cool and well-ventilated place.

## Specific Use(s)

Use in laboratories

3-Methoxybenzoyl chloride

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

## **Control Parameters**

### **Monitoring methods**

BS EN 14042:2003 Title Identifier: Workplace atmospheres, Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. MDHS70 General methods for sampling airborne gases and vapours

## **Exposure Controls**

### **Engineering Measures**

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source.

### Personal protective equipment

| Eye Protection                   | Goggles (European standard - EN 166)   |                 |                       |   |
|----------------------------------|--|-----------------|-----------------------|---|
| Hand Protection                  | Protective gloves                      |                 |                       |   |
| Glove material<br>Nitrile rubber | Breakthrough time<br>See manufacturers | Glove thickness | EU standard<br>EN 374 | Glove comments<br>(minimum requirement) |

| Nitrile rubber | See manufacturers | - | EN 374 | (minimum requirement) |
|----------------|-------------------|---|--------|-----------------------|
| Neoprene       | recommendations   |   |        |                       |
| Natural rubber |                   |   |        |                       |
| PVC            |                   |   |        |                       |

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

| Skin and body protection        | Wear appropriate protective gloves and clothing to prevent skin exposure  |  |
|---------------------------------|---|--|
| Respiratory Protection          | When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.<br>To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly   |  |
| Large scale/emergency use       | Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced <b>Recommended Filter type:</b> Organic gases and vapours filter Type A Brown conforming to EN14387   |  |
| Small scale/Laboratory use      | Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.<br><b>Recommended half mask:-</b> Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141<br>When RPE is used a face piece Fit Test should be conducted |  |
| Hygiene Measures                | Handle in accordance with good industrial hygiene and safety practice.  |  |
| Environmental exposure controls | No information available.   |  |
|                                 |   |  |

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

## **SAFETY DATA SHEET**

## 3-Methoxybenzoyl chloride

| Appearance                         | Clear                         |  |
|------------------------------------|-------------------------------|--|
| Physical State                     | Liquid                        |  |
| Odor                               | No information available      |  |
| Odor Threshold                     | No data available             |  |
| рН                                 | No information available      |  |
| Melting Point/Range                | No data available             |  |
| Softening Point                    | No data available             |  |
| Boiling Point/Range                | 123 - 125 °C / 253.4 - 257 °F | @ 15 mmHg                              |
| Flash Point                        | 92 °C / 197.6 °F              | Method - No information available      |
| Evaporation Rate                   | No data available             |  |
| Flammability (solid,gas)           | Not applicable                | Liquid                                 |
| Explosion Limits                   | No data available             |  |
| Vapor Pressure                     | No data available             |  |
| Vapor Density                      | No data available             | (Air = 1.0)                            |
| Specific Gravity / Density         | 1.214                         |  |
| Bulk Density                       | Not applicable                | Liquid                                 |
| Water Solubility                   | Decomposes                    |  |
| Solubility in other solvents       | No information available      |  |
| Partition Coefficient (n-octanol/w | ater)                         |  |
| Autoignition Temperature           | No data available             |  |
| Decomposition Temperature          | No data available             |  |
| Viscosity                          | No data available             |  |
| Explosive Properties               |                               | explosive air/vapour mixtures possible |
| Oxidizing Properties               | No information available      |  |
| Molecular Formula                  | C8 H7 CI O2                   |  |
| Molecular Weight                   | 170.6                         |  |
|                                    |                               |  |

## SECTION 10. STABILITY AND REACTIVITY

| Stability                                       | Moisture sensitive.  |
|---|--|
| Hazardous Reactions<br>Hazardous Polymerization | No information available.<br>No information available.   |
| Conditions to Avoid                             | Incompatible products. Exposure to moist air or water. Keep away from open flames, hot surfaces and sources of ignition. |
| Materials to avoid                              | Water. Strong oxidizing agents. Strong bases.  |

Hazardous Decomposition Products Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Hydrogen chloride gas.

## SECTION 11. TOXICOLOGICAL INFORMATION

| Product Information   | No acute toxicity information is available for this product |
|---|---|
| (a) acute toxicity;   |   |
| (b) skin corrosion/irritation;                                | Category 1 B  |
| (c) serious eye damage/irritation;                            | Category 1  |
| (d) respiratory or skin sensitization;<br>Respiratory<br>Skin | No data available<br>No data available                      |

## 3-Methoxybenzoyl chloride

| (e) germ cell mutagenicity;  | No data available  |
|--|--|
| (f) carcinogenicity;   | No data available  |
|  | There are no known carcinogenic chemicals in this product  |
| (g) reproductive toxicity;   | No data available  |
| (h) STOT-single exposure;  | Category 3   |
| Results / Target organs  | Respiratory system   |
| (i) STOT-repeated exposure;  | No data available  |
| Target Organs  | No information available.  |
| (j) aspiration hazard;   | No data available  |
| Other Adverse Effects  | The toxicological properties have not been fully investigated.   |
| Symptoms / effects,both acute and delayed  | Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting:<br>Product is a corrosive material. Use of gastric lavage or emesis is contraindicated.<br>Possible perforation of stomach or esophagus should be investigated: Ingestion causes<br>severe swelling, severe damage to the delicate tissue and danger of perforation |
|  | SECTION 12. ECOLOGICAL INFORMATION   |
| Ecotoxicity effects  | Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.  |
| Persistence and Degradability  | No information available   |
| Bioaccumulative Potential  | No information available   |
| Mobility in soil   | No information available   |
| Endocrine Disruptor Information<br>Persistent Organic Pollutant<br>Ozone Depletion Potential | This product does not contain any known or suspected endocrine disruptors<br>This product does not contain any known or suspected substance<br>This product does not contain any known or suspected substance  |
|  | SECTION 13. DISPOSAL CONSIDERATIONS  |
| Waste from Residues/Unused<br>Products   | Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.   |
| Contaminated Packaging   | Dispose of this container to hazardous or special waste collection point.  |
| Other Information  | Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Do not flush to sewer. Large amounts will affect pH and harm aquatic organisms.  |

3-Methoxybenzoyl chloride

## **SECTION 14. TRANSPORT INFORMATION**

## Road and Rail Transport

| UN-No                | UN1729           |
|----------------------|------------------|
| Proper Shipping Name | ANISOYL CHLORIDE |
| Hazard Class         | 8                |
| Packing Group        | II               |
| IMDG/IMO             |                  |
| UN-No                | UN1729           |
| Proper Shipping Name | ANISOYL CHLORIDE |
| Hazard Class         | 8                |
| Packing Group        | II               |
| IATA_                |                  |
| UN-No                | UN1729           |
| Proper Shipping Name | ANISOYL CHLORIDE |
| Hazard Class         | 8                |
| Packing Group        | II               |

**Special Precautions for User** 

No special precautions required

## **SECTION 15. REGULATORY INFORMATION**

#### **International Inventories**

X = listed, China (IECSC), Europe (EINECS/ELINCS/NLP), U.S.A. (TSCA), Canada (DSL/NDSL), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), Korea (KECL).

| Component          | Chemicals<br>(2015 | goods GB |   | IECSC | EINECS    | TSCA | DSL | PICCS | ENCS | ISHL | AICS | KECL |
|--------------------|--------------------|----------|---|-------|-----------|------|-----|-------|------|------|------|------|
|                    | Edition)           |          |   |       |           |      |     |       |      |      |      |      |
| m-Anisoyl chloride | -                  | -        | Х | -     | 216-975-2 | -    | -   | -     | -    |      | -    | -    |

### **National Regulations**

## **SECTION 16. OTHER INFORMATION**

| Prepared By             |
|-------------------------|
| Revision Date           |
| <b>Revision Summary</b> |

Health, Safety and Environmental Department 27-Apr-2024 New emergency telephone response service provider.

### Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

## Legend

## 3-Methoxybenzoyl chloride

| CAS - Chemical Abstracts S | ervice |
|----------------------------|--------|
|----------------------------|--------|

EINECS/ELINCS - European Inventory of Existing Commercial Chemical DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances/EU List of Notified Chemical Substances **PICCS** - Philippines Inventory of Chemicals and Chemical Substances **IECSC** - Chinese Inventory of Existing Chemical Substances KECL - Korean Existing and Evaluated Chemical Substances

WEL - Workplace Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

**DNEL** - Derived No Effect Level

RPE - Respiratory Protective Equipment

LC50 - Lethal Concentration 50%

NOEC - No Observed Effect Concentration

PBT - Persistent, Bioaccumulative, Toxic

ICAO/IATA - International Civil Aviation Organization/International Air **Transport Association** ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road **OECD** - Organisation for Economic Co-operation and Development BCF - Bioconcentration factor

## Key literature references and sources for data

https://echa.europa.eu/information-on-chemicals Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

Substances List

**ENCS** - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances NZIOC - New Zealand Inventory of Chemicals

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

PNEC - Predicted No Effect Concentration

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50%

POW - Partition coefficient Octanol:Water

vPvB - very Persistent, very Bioaccumulative

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code MARPOL - International Convention for the Prevention of Pollution from Ships ATE - Acute Toxicity Estimate VOC - (Volatile Organic Compound)

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 Safety Data Sheet