

Australian statement of hazardous nature : Classified as hazardous according to criteria of Safe Work Australia

Section 1 - Identification

Product Name 2-Benzyl-4-chlorophenol

CAS No 120-32-1

Product Code **L07504**

Address ThermoFisher Scientific Australia Pty Ltd
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VICTORIA 3179, Australia

Emergency Tel. **CHEMTREC®**
03 9757 4559 or +613 9757 4559

Telephone / Fax Numbers Tel: 1300 735 292
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Recommended Use Laboratory chemicals.

Uses advised against This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.
This product does not contain any substance(s) subject to Prohibition, Authorization or Restriction. This product does not contain any substance(s) listed on the voluntary National Code of Practice for Chemicals of Security Concern.

Section 2 - Hazard(s) Identification

Classification under Safe Work Australia

Classified as hazardous according to criteria of Safe Work Australia

Physical hazards
No hazards identified

Health hazards

| | |
|--|------------|
| Acute Inhalation Toxicity - Dusts and Mists | Category 4 |
| Skin Corrosion/Irritation | Category 2 |
| Serious Eye Damage/Eye Irritation | Category 1 |
| Skin Sensitization | Category 1 |
| Carcinogenicity | Category 2 |
| Reproductive Toxicity | Category 2 |
| Specific target organ toxicity - (repeated exposure) | Category 2 |

Environmental hazards

| | |
|--------------------------|------------|
| Acute aquatic toxicity | Category 1 |
| Chronic aquatic toxicity | Category 1 |

Label Elements



Exclamation Mark



Health Hazard



Corrosion



Environment

Signal Word**Danger****Hazard Statements**

H315 - Causes skin irritation
 H317 - May cause an allergic skin reaction
 H318 - Causes serious eye damage
 H332 - Harmful if inhaled
 H351 - Suspected of causing cancer
 H361 - Suspected of damaging fertility or the unborn child
 H373 - May cause damage to organs through prolonged or repeated exposure
 H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements

P280 - Wear protective gloves
 P201 - Obtain special instructions before use
 P202 - Do not handle until all safety precautions have been read and understood
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray
 P264 - Wash face, hands and any exposed skin thoroughly after handling
 P271 - Use only outdoors or in a well-ventilated area
 P272 - Contaminated work clothing should not be allowed out of the workplace
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
 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
 P362 + P364 - Take off contaminated clothing and wash it before reuse
 P403 - Store in a well-ventilated place
 P501 - Dispose of contents/ container to an approved waste disposal plant

Other information

No information available

Section 3 - Composition and Information on Ingredients

| Component | CAS No | Weight % |
|-------------------------|----------|----------|
| o-Benzyl-p-chlorophenol | 120-32-1 | <=100 |

Section 4 - First Aid Measures

Inhalation

Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

Ingestion

Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

| | |
|--|--|
| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention. |
| General Advice | If symptoms persist, call a physician. |
| 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. |
| First Aid Facilities | Eyewash, safety shower and washroom. |
| Most important symptoms and effects | None reasonably foreseeable. Causes severe eye damage. May cause allergic skin reaction. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing |
| Notes to Physician | Treat symptomatically. |

Section 5 - Fire Fighting Measures

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Extinguishing media which must not be used for safety reasons

No information available.

Hazardous Decomposition Products

Carbon oxides, Hydrogen chloride.

Specific Hazards Arising from the Chemical

Do not allow run-off from fire-fighting to enter drains or water courses.

Special protective equipment and precautions for fire fighters

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

Emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.

Environmental Precautions

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

Methods for Containment and Clean Up

Clean-up methods - small spillage

Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal.

Clean-up methods - large spillage

Typically only supplied in small quantities as packaged goods.

If extremely toxic or used in larger quantities ensure a spillage action plan is in place. Evacuate area. Control the source and/or contain the spill if safe and able to do so. Use temporary diking, sand bags, dry sand, earth or proprietary booms/absorbent pads if available. Obtain advice on containment, neutralisation and clean-up from local emergency responders.

Reference to Other Sections

Refer to protective measures listed in Sections 8 and 13.

Section 7 - Handling and Storage

Precautions for Safe Handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation.

Conditions for Safe Storage, Including any Incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

AS/NZS 2243.10:2004, Safety in laboratories - Storage of chemicals

Section 8 - Exposure Controls and Personal Protection

Exposure limits

The product does not contain any hazardous materials with occupational exposure limits established.

Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Exposure Controls

Engineering Measures

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 (Australian/New Zealand Standard AS/NZS 1337 - Eye protectors for Industrial applications)

Hand Protection

Protective gloves

| Glove material | Breakthrough time | Glove thickness | AUS/NZ Standard | Glove comments |
|---|-----------------------------------|-----------------|-----------------|-----------------------|
| Nitrile rubber Neoprene Natural rubber PVC | See manufacturers recommendations | - | AS/NZS 2161 | (minimum requirement) |

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 compatibility, 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

Long sleeved clothing

Respiratory Protection

Use an AS/NZS 1716 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained in line with AS/NZS 1715 on the use and maintenance of respiratory protective devices

Recommended Filter type:

Particulates filter conforming to EN 143 (or AUS/NZ equivalent)

Recommended half mask:-

Particle filtering: EN149:2001 (or AUS/NZ equivalent)

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 Prevent product from entering drains. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained.

Section 9 - Physical and Chemical Properties

Information on basic physical and chemical properties

| | | |
|--|-------------------------------|--|
| Appearance | White | |
| Physical State | Solid Crystalline | |
| Odor | No information available | |
| Odor Threshold | No data available | |
| pH | Not applicable | |
| Melting Point/Range | 45 - 51 °C / 113 - 123.8 °F | |
| Softening Point | No data available | |
| Boiling Point/Range | 160 - 162 °C / 320 - 323.6 °F | |
| Flash Point | 185 °C / 365 °F | Method - No information available |
| Evaporation Rate | Not applicable | Solid |
| Flammability (solid,gas) | No information available | |
| Explosion Limits | No data available | |
| Vapor Pressure | No data available | |
| Vapor Density | Not applicable | Solid |
| Specific Gravity / Density | 1.19 g/cm3 | @ 20 °C |
| Bulk Density | No data available | |
| Water Solubility | No information available | |
| Solubility in other solvents | No information available | |
| Partition Coefficient (n-octanol/water) | | |
| Autoignition Temperature | No data available | |
| Decomposition Temperature | No data available | |
| Viscosity | Not applicable | Solid |
| Explosive Properties | No information available | |
| Oxidizing Properties | No information available | |
| Other information | | |
| Molecular Formula | C13 H11 Cl O | |
| Molecular Weight | 218.69 | |

Section 10 - Stability and Reactivity

| | |
|---|--|
| Reactivity | None known, based on information available |
| Stability | Stable under normal conditions. |
| Conditions to Avoid | Heat, flames and sparks. |
| Incompatible Materials | None known. |
| Hazardous Decomposition Products | Carbon oxides. Hydrogen chloride. |
| Hazardous Polymerization | No information available. |

Section 11 - Toxicological Information

Information on Toxicological Effects

Product Information

(a) acute toxicity;

Oral

Based on available data, the classification criteria are not met

Dermal

Based on available data, the classification criteria are not met

Inhalation

Category 4

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|-------------------------|--|-------------------------------------|---|
| o-Benzyl-p-chlorophenol | LD50 > 2000 mg/kg bw (Rat) OECD 401 | LD50 > 2000 mg/kg (Rat) OECD 402 | LC50 = 2.6 mg/l (Rat/male) 4h (dust/mist) OECD 403 LC50 = 2.43 mg/l (Rat/female) 4h (dust/mist) OECD 403 |

(b) skin corrosion/irritation;

Category 2

(c) serious eye damage/irritation;

Category 1

(d) respiratory or skin sensitization;

Respiratory

No data available

Skin

Category 1

Sensitization

May cause sensitization by skin contact

(e) germ cell mutagenicity;

No data available

(f) carcinogenicity;

Category 2

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity;

Category 2

(h) STOT-single exposure;

No data available

(i) STOT-repeated exposure;

Category 2

Target Organs

Kidney.

(j) aspiration hazard;

Not applicable
Solid

Symptoms / effects, both acute and delayed

Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

Section 12 - Ecological Information

Ecotoxicity effects

The product contains following substances which are hazardous for the environment. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

| Component | Freshwater Fish | Water Flea | Freshwater Algae | Microtox |
|-------------------------|---|--|--|----------|
| o-Benzyl-p-chlorophenol | LC50 (96h) = 0.72 mg/l (US-EPA) Onchorhynchus mykiss LC50 (96h) = 0.33 mg/l (US-EPA) Lepomis macrochirus | EC50 (48h) = 0.655 mg/l (OECD 202) Daphnia magna | EC50 = 0.435 mg/L (U.S. EPA OCSP 850.4500) Freshwater algae | |

Persistence and Degradability

Degradation in sewage
treatment plant

Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Bioaccumulative Potential

No information available

| | |
|--|---|
| Mobility | No information available. |
| Endocrine Disruptor Information | This product does not contain any known or suspected endocrine disruptors |
| Persistent Organic Pollutant | This product does not contain any known or suspected substance |
| Ozone Depletion Potential | This product does not contain any known or suspected substance |

Section 13 - Disposal Considerations

| | |
|--|--|
| Waste from Residues/Unused Products | Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with all federal, E.P.A., state and local regulations. Assure conformity with all applicable regulations. |
| Contaminated Packaging | Dispose of this container to hazardous or special waste collection point. |
| Other Information | Chemical wastes should be disposed through a licensed commercial waste collection service. Do not flush to sewer. 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 let this chemical enter the environment. |

Section 14 - Transport Information

IMDG/IMO

| | |
|--------------------------------|---|
| UN-No | UN3077 |
| Proper Shipping Name | Environmentally hazardous substances, solid, n.o.s. |
| Technical Shipping Name | (2-Benzyl-4-chlorophenol) |
| Hazard Class | 9 |
| Packing Group | III |

ADG

| | |
|--------------------------------|---|
| UN-No | UN3077 |
| Proper Shipping Name | Environmentally hazardous substances, solid, n.o.s. |
| Technical Shipping Name | (2-Benzyl-4-chlorophenol) |
| Hazard Class | 9 |
| Packing Group | III |

IATA

| | |
|--------------------------------|---|
| UN-No | UN3077 |
| Proper Shipping Name | Environmentally hazardous substances, solid, n.o.s. |
| Technical Shipping Name | (2-Benzyl-4-chlorophenol) |
| Hazard Class | 9 |
| Packing Group | III |

| | |
|-------------------------------|--|
| Environmental hazards | Dangerous for the environment Product is a marine pollutant according to the criteria set by IMDG/IMO |
| Special Precautions | No special precautions required |
| Additional information | None known |

Section 15 - Regulatory Information

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

| | |
|-----------------------------|-----------|
| National Regulations | Australia |
|-----------------------------|-----------|

See section 8 for national exposure control parameters.

Standard for the Uniform Scheduling of Medicines and Poisons

No poison schedule number allocated.

Australian Industrial Chemicals Introduction Scheme (AICIS)

| Component | Australian Industrial Chemicals Introduction Scheme (AICIS) | Additional information |
|------------------------------------|---|------------------------|
| o-Benzyl-p-chlorophenol - 120-32-1 | Present | - |

Australian - Illicit Drug Precursors/Reagents Substance List

This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.

Chemicals of Security Concern

This product does not contain any substance(s) listed on the voluntary National Code of Practice for Chemicals of Security Concern

National pollutant inventory Not applicable

Prohibition or notification/licensing requirements

Shown below are details of specific prohibition/notifications or licencing requirements when they apply.

This product does not contain any substance(s) subject to Prohibition, Authorization or Restriction.

International Inventories

| Component | AICS | NZIoC | EINECS | ELINCS | TSCA | DSL | NDSL | PICCS | ENCS | ISHL | IECSC | KECL |
|-------------------------|------|-------|-----------|--------|------|-----|------|-------|------|------|-------|----------|
| o-Benzyl-p-chlorophenol | X | X | 204-385-8 | - | X | X | - | X | X | X | X | KE-05852 |

Legend: X - Listed. '-' - Not Listed. **KECL** - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

International Regulations

Ozone Depletion Potential This product does not contain any known or suspected substance

Persistent Organic Pollutant This product does not contain any known or suspected substance

Rotterdam Convention (PIC) Not applicable

Basel convention on the control of transboundary movements of hazardous wastes and their disposal

Not applicable.

| Component | CAS No | OECD HPV | Restriction of | Seveso III Directive | Seveso III Directive |
|-----------|--------|----------|----------------|----------------------|----------------------|
|-----------|--------|----------|----------------|----------------------|----------------------|

| | | | Hazardous Substances (RoHS) | (2012/18/EC) - Qualifying Quantities for Major Accident Notification | (2012/18/EC) - Qualifying Quantities for Safety Report Requirements |
|-------------------------|----------|--------|-----------------------------|--|---|
| o-Benzyl-p-chlorophenol | 120-32-1 | Listed | Not applicable | Not applicable | Not applicable |

Authorisation/Restrictions according to EU REACH

| Component | 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) |
|-------------------------|---|---|---|
| o-Benzyl-p-chlorophenol | - | Use restricted. See item 75. (see link for restriction details) | - |

<https://echa.europa.eu/substances-restricted-under-reach>

Section 16 - Other Information

Legend

| | |
|--|--|
| AICS - Australian Inventory of Chemical Substances | NZIoC - New Zealand Inventory of Chemicals |
| TSCA - United States Toxic Substances Control Act Section 8(b) Inventory | EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances |
| DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List | ENCS - Japanese Existing and New Chemical Substances |
| IECSC - Chinese Inventory of Existing Chemical Substances | KECL - Korean Existing and Evaluated Chemical Substances |
| PICCS - Philippines Inventory of Chemicals and Chemical Substances | CAS - Chemical Abstracts Service |
| TWA - Time Weighted Average | ACGIH - American Conference of Governmental Industrial Hygienists Predicted No Effect Concentration (PNEC) |
| IARC - International Agency for Research on Cancer | IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code |
| ICAO/IATA - International Civil Aviation Organization/International Air Transport Association | ADG Australian Code for the Transport of Dangerous Goods by Road and Rail |
| MARPOL - International Convention for the Prevention of Pollution from Ships | OECD - Organisation for Economic Co-operation and Development |
| NZS 5433:2012 - Transport of Dangerous Goods on Land | LC50 - Lethal Concentration 50% |
| LD50 - Lethal Dose 50% | ATE - Acute Toxicity Estimate |
| EC50 - Effective Concentration 50% | RPE - Respiratory Protective Equipment |
| WEL - Workplace Exposure Limit | NOEC - No Observed Effect Concentration |
| DNEL - Derived No Effect Level | BCF - Bioconcentration factor |
| POW - Partition coefficient Octanol:Water | PBT - Persistent, Bioaccumulative, Toxic |
| vPvB - very Persistent, very Bioaccumulative | |
| VOC - (Volatile Organic Compound) | |

Key literature references and sources for data

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

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.
Chemical incident response training.

Revision Date 18-Nov-2022
Revision Summary SDS sections updated, 11, 12.

This Safety Data Sheet (SDS) is prepared in accordance to and complies with the requirements of Safe Work Australia - Work Health and Safety Regulations (WHS Regulations).

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