Safety Data Sheet

Date of Issue: 24.08.2020 Date of Expiry: 24.08.2025

1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name: : **ECP Limited**
Address: : PO Box 34125, Birkenhead, Auckland 0746
Telephone: : +64 9 480 4386
Facsimile: : +64 9 480 4385
Emergency phone number: : 0800 243 622 (24 hours)

Product	**Benzoic acid**	**Code**	**14951**
CAS No.	65-85-0	**HSNO**	HSR003445

Recommended use : Laboratory chemicals, Manufacture of substances

2: Hazards identification

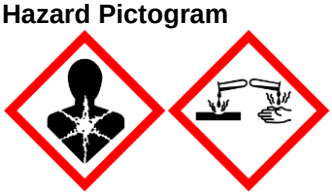
Chemical Classification and Information Database (CCID) by www.epa.govt.nz
Classification: 6.1D, 6.4A, 6.9B, 9.3C

2.1 GHS Classification

Acute toxicity, Oral (Category E), H303
Skin irritation (Category A), H315
Serious eye damage (Category A), H318
Specific Target Organ Toxicity, Inhalation (Category A), Lungs, H372
Aquatic toxicity (Acute or Chronic) (Category D), H402

2.2 GHS Label elements, including precautionary statements

Hazard Pictogram



Signal word : **Danger**

Hazard statement(s)

H303 : May be harmful if swallowed.
H315 : Causes skin irritation.
H318 : Causes serious eye damage.
H372 : Causes damage to organs (Lungs) through prolonged or repeated exposure if inhaled.
H402 : Harmful to aquatic life.

Precautionary statement(s) - Prevention

P260 : Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264 : Wash skin thoroughly after handling.
P270 : Do not eat, drink or smoke when using this product.
P273 : Avoid release to the environment.
P280 : Wear protective gloves/ eye protection/ face protection

Precautionary statement(s) – Response

P302 + P352 : IF ON SKIN: Wash with plenty of soap and water.
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/ physician.
P321 : Specific treatment (see supplemental first aid instructions on this label).
P332 + P313 : If skin irritation occurs: Get medical advice/ attention.
P362 : Take off contaminated clothing and wash before reuse.

Precautionary statement(s) - Disposal

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

2.3 Other hazards - none

3: Composition/information on ingredients

Substance / Mixture : Substance

3.1 Substances

Formula : C7H6O2
Molecular weight : 122.12 g/mol
CAS-No. : 65-85-0
EC-No. : 200-618-2

Hazardous components

Component	Classification	Concentration
Benzoic acid		
	6.1D, 6.4A, 6.9B, 9.3C; H303, H315, H318, H372, H402	<= 100 %

4: First aid measures

4.1 Description of first aid measures

First-aid measures after inhalation

- Assure fresh air breathing. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact

- Wash with plenty of water/…. Wash contaminated clothing before reuse. Get medical advice/attention.

First-aid measures after eye contact

- Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion

- Rinse mouth. Call a POISON CENTER/doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after eye contact

- Causes serious eye irritation.

Symptoms/effects after ingestion

- Harmful if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

- Treat symptomatically.

5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry powder. Foam. Water spray.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- No additional information available

5.3. Advice for firefighters

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. On land, sweep or shovel into suitable containers.

6.4. Reference to other sections

- No additional information available

7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Do not breathe vapours. Avoid dust formation.
Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep container tightly closed.

7.3. Specific end use(s)

- No additional information available

8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

Derived No Effect Level (DNEL)

Application Area	Exposure routes	Health effect	Value
Workers	Inhalation	Long-term local effects	0.1 mg/m3
Workers	Inhalation	Long-term systemic effects	3 mg/m3
Workers	Skin Contact	Long-term systemic effects	62.5mg/kg BW/d

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards.

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type or respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Molecular mass	: 122.12 g/mol
Colour	: White crystalline.
Odour	: faint pleasant odour.
Odour threshold	: No data available
pH	: 2.5 - 3.5
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 121 - 125 °C
Freezing point	: No data available
Boiling point	: 249 °C
Flash point	: 121 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: 13 mm Hg at 132 °C
Relative vapour density at 20 °C	: 4.22
Relative density	: No data available
Density	: 1.32 g/cm³
Solubility	: Water: 2.9 g/l at 25 °C
Log Pow	: 1.88
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

- No additional information available

10: Stability and reactivity

10.1 Reactivity
- No data available

10.2 Chemical stability
- Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
- May react violently or explosively in contact with oxidising agents. May react violently in contact with alkalis.

10.4 Conditions to avoid
- Direct sunlight. Air contact. Moisture.

10.5 Incompatible materials
- Oxidising agents, oxygen, fluorine and alkalis.

10.6 Hazardous decomposition products
- Hazardous decomposition products formed under fire conditions. - Carbon oxides
  Other decomposition products - No data available
  In the event of fire: see section 5

11: Toxicological information

11.1 Toxicology Information
- No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. If mishandled or overexposed to this product the following symptoms or effects may occur.

Acute Toxicity - Oral : LD50 (rat): >2000 mg/kg.
Acute Toxicity – Dermal : LD50 (rabbit): >5000 mg/kg.
Acute Toxicity – Inhalation : LC50 (rat) : > 12.2 mg/l 4h.

Ingestion
- Mucosal irritations, nausea and vomiting.

Inhalation
- Cough: vapour or dust may cause irritation of the nose, throat and upper respiratory passages.

Skin
- Causes skin irritation.

Eye
- Rabbit: Causes serious eye damage.

Skin Sensitisation
- Skin contact or ingestion of benzoic acid has produced allergies in humans. Sensitized people who contact or ingest benzoic acid react with hives (reddening, patchy swelling, 'burning' sensation and itching) or asthmatic wheezing. In severely affected persons, symptoms may worsen to anaphylactic shock with violent cough, chest constriction, difficulty breathing, convulsions, collapse and death.

Germ cell mutagenicity
- Ames test result: negative.

Carcinogenicity
- IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity
- No data available

Specific target organ toxicity - single exposure
- No data available

Acute oral toxicity - Nausea, Vomiting, Irritation of mucous membranes
Acute inhalation toxicity - Cough, Possible damages: mucosal irritations

Specific target organ toxicity - repeated exposure
- Inhalation - Causes damage to organs through prolonged or repeated exposure. - Lungs

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Aspiration hazard
- No data available

12: Ecological information

Ecological Information
- No ecological problems are to be expected when the product is handled and used with due care and attention.

Persistence and degradability
- Biological degradability:
  >71 %/ 5 d (test in closed bottle).
  Readily biodegradable.
  >90% / 2 d
  Readily eliminated from water.

Bioaccumulative Potential
- Behaviour in environmental compartments:
  Distribution: log P(o/w): 1.88
  No appreciable bioaccumulation potential is to be expected (log P(o/w) 1-3).
  Bioaccumulation:
  Leuciscus idus (Golden orfe) 3d / 50 µg/l.

Known harmful effects on the Environment
- Harmful effect on aquatic organisms.

Acute Toxicity – Fish : LC50 (L. macrochirus): 44.6 mg/l /96 h.
Acute Toxicity – Daphnia : EC50 (Daphnia magna): 860 mg/l /48h.
Acute Toxicity – Algae : EC50 (Pseudokirchneriella subcapitata): 33.1 mg/l /72 h.

13: Disposal considerations

13.1 Waste treatment methods
Product
Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

14: Transport Information Table

	ADR/RID – European packaging certification	**IMDG International Maritime Dangerous Goods Code**	**IATA – DGR International Air Travel Association – Dangerous Goods Regulations**

14.1	**UN Number**	-	-	-
14.2	**UN Proper Shipping name**	Not dangerous goods	Not dangerous goods	Not dangerous goods
14.3	**Transport Hazard Class**	-	-	-
14.4	**Packaging group**	-	-	-
14.5	**Environmental Hazards**	No	No	No
14.6	**Special precautions for user**	None		
14.7	**Incompatible Materials**	Strong oxidizing agents, Strong bases, Strong reducing agents		

15: Regulatory information

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

National regulatory information
HSNO Approval Code: HSR003445
HSNO Group Standard Approval: HSR002596 - Laboratory Chemicals and Reagent Kits Group Standard 2006
Tracking Required : not required
Approved Handler Cert. : not required

16: Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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