

SECTION 1: Identification of the substance/mixture and the company/undertaking

1.1 Product identifier

Trade name: **Benzoic Acid, Food/Pharma Grade, Flake**

REACH registration No.: 01-2119455536-33-0004

CAS-Number: 65-85-0

EC-number: 200-618-2

EU-number: 607-705-00-8

1.2 Relevant identified uses of the substance or mixture and uses advised against

1.2.1 Relevant identified uses

Used in the synthesis as an intermediate for salts and esters, and as a chain stopper for alkyd resins.
Manufacture of substances

1. Use as an intermediate
SU 10; PROC 1, 2, 3, 4, 8a, 8b, 15; PC 19; ERC 6a
2. Use as an auxiliary for polymerization
SU 10; PROC 1, 2, 3, 4, 8a, 8b, 15; PC 32; ERC 6d
3. Use in the production of benzoate esters
PROC 1, 2, 3, 4, 8a, 8b, 15; PC 15; ERC 6b
4. Use of lab chemicals in a professional setting
PROC 15; PC 21; ERC 8a

1.2.2 Uses advised against

No specific uses advised against have been identified.

1.3 Details of the supplier of the safety data sheet

Company name: Velsicol Chemical Ireland Ltd
Charter House
Street/POB-No.: 5 Pembroke Row
Postal Code, city: Dublin 2
Republic of Ireland
WWW: www.velsicol.com
E-mail: sfriedman@velsicol.com
Telephone: 00353 1 477 3143
Telefax: 00353 1 402 9587
Dept. responsible for information: sfriedman@velsicol.com

1.4 Emergency telephone number

Telephone: +49 51 92 98970 (08:00–17:00 CET) or
CHEMTREC, Telephone: +1 703 527 3887 (24h; from USA: 1-800-424-9300)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

2.1.1 Classification according to EC regulation 1272/2008 (CLP)

| Hazard classification | Hazard statement |
|-----------------------|---|
| Skin Irrit. 2, H315 | Causes skin irritation. |
| Eye Damage 1, H318 | Causes serious eye damage. |
| STOT Rep. 1, H372 | Causes damage to Lungs through prolonged or repeated exposure by Inhalation |

2.2 Labelling elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms



GHS05



GHS08

Signal Word: **Danger**

Hazard statement:

H315: Causes skin irritation.

H318: Causes serious eye damage.

H372: Causes damage to Lungs through prolonged or repeated exposure by Inhalation

Precautionary statements:

P260: Do not breathe dust/fume/gas/mist/vapours/spray.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P264: Wash contaminated skin thoroughly after handling.

P314: Get medical advice/attention if you feel unwell.

P302+P352: IF ON SKIN: Wash with plenty of 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.

2.3 Other hazards

None known

SECTION 3: Composition/information on ingredients:

3.1 Substances

| Chemical Name | Synonyms | CAS No. | EC NO. | % by Weight |
|---------------|--|---------|-----------|-------------|
| Benzoic Acid | Benzene carboxylic acid Benzene formic acid | 65-85-0 | 200-618-2 | ≥100.0 |

Specific Concentration limits, M-Factors, Acute Toxicity Estimates (ATE)

Not available

3.2 Mixtures

Not applicable

SECTION 4: First-aid measures

4.1 Description of first aid measures

4.1.1 General information:

Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (permeator). Move out of dangerous area if irritation or other symptoms occur from any route of exposure.

See Section 11 for toxicological information.

4.1.2 Following inhalation:

If inhaled, move to fresh air. If breathing is difficult, give oxygen. Seek medical attention.

4.1.3 Following skin contact:

Flush immediately the area with soap and plenty of water. Remove contaminated clothing and shoes. Seek medical attention.

4.1.4 Following eye contact:

Check for and remove any contact lenses. Flush immediately with plenty of water for at least 15 minutes. Seek medical attention.

4.1.5 Following ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Get medical attention. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

4.1.6 Self-protection of the first aider:

Wear protective gloves/protective clothing/eye protection/face protection if possible. Do not get in eyes, on skin, or on clothing. Contaminated work clothing should not be allowed out of the workplace. Get medical attention immediately if exposure occurs from any route.

4.1.7 Notes for the doctor:

Not available.

4.2 Most important symptoms and effects, both acute and delayed

See section 2 and/or section 11

4.3 Indication of any immediate medical attention and special treatments needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Flammability Properties: Flash point: 121°C (250°F) CC, Auto ignition temperature: 570°C (1058°F). Combustible dust.

Suitable extinguishing media: dry chemicals, water spray or alcohol-resistant foam, and CO₂ (may be ineffective on larger fires due to a lack of cooling capacity).

Unsuitable extinguishing media: Do not use water jet or any method that will create dust clouds.

5.2 Special hazards arising from the substance or mixture

Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Vapor from molten benzoic acid may form explosive mixture with air.

Products of combustion are carbon oxides (CO, CO₂).

5.3 Advice for fire fighters

Firefighters and others who may be exposed to products of combustion should wear full firefighting turn out gear and self-contained breathing apparatus (SCBA). Firefighting equipment should be thoroughly decontaminated after use.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing.

Removal of ignition sources, provision of sufficient ventilation, avoid raising dust. Evacuate the danger area and consult an expert.

6.2 Environmental precautions

Do not allow to enter sewers / surface or ground water.

In case of spillage to water course or public sewers inform responsible authorities.

6.3 Methods and materials for containment and clearing up

Contain spill. Use spark-proof and explosion-proof tools to put the spilled solid in a convenient waste disposal container. Neutralize the residue with a dilute solution of sodium carbonate. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

6.4 References to other sections

See sections 8 and 13 for further advice.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

7.1.1 Recommendations for safe handling

Protective measures: Do not handle until all safety precautions have been read and understood; Wear suitable protective clothing, gloves and eye/face protection (see Section 8).

Measures to prevent aerosol and dust generation: Provide ventilation to minimize exposure. Avoid raising dust. Do not breathe dust/fumes/gas/mist/vapours/spray.

Measures to protect the environment: Avoid release to the environment.

7.1.2 Advices on general occupational hygiene

Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding exposure through any route. Keep away from sources of ignition and avoid raising dust.

7.2 Conditions for safe storage, including any incompatibilities

7.2.1 Requirements for storerooms and containers

Store in a cool, dry, and well-ventilated area away from sources of ignition; Keep container tightly closed.

7.3 Specific end use(s)

No data available

SECTION 8. Exposure controls/personal protection

8.1 Control parameters

8.1.1 The national occupational exposure limit values

No national limits have been set for Occupational Exposure Limit (OEL) values.

ACGIH has recommended the following exposure limits for Particulates (insoluble or poorly soluble) not otherwise specified (PNOS): 10 mg/m³ TWA (inhalable particles), 3mg/m³ TWA (respirable particles).

OSHA exposure limits for Particulates not otherwise regulated are 15 mg/m³ TWA (total dust) and 5mg/m³ TWA (respirable fraction).

8.1.2 Recommended monitoring procedures

N/A

8.1.3 Air contaminants occupational exposure limit values

N/A

8.1.4 The relevant DNELs and PNECs

N/A

Benzoic Acid

DN(M)EL: Derived No(Minimal) Effect Level; NOAEL(C): No-observed-adverse-effect level (concentration),
PNEC: Predicted No-Effect Concentration

8.2 Exposure controls

8.2.1 Appropriate engineering controls:

Always provide effective general and, when necessary, local exhaust ventilation to draw dust and vapor away from workers to prevent routine inhalation.

Eliminate ignition sources (e.g., spark, static buildup, and heat, etc.).

8.2.2 Personal protective equipment (PPE):

Do not eat, drink, or smoke whilst working. Keep away from foodstuffs, beverages and feed. Remove all contaminated clothing. Wash hands before breaks and at the end of work.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. Use respirator in accordance with manufacturer's use limitations and OSHA standard 1910.134 (29 CFR).

Eye and face protection

Safety glasses with side shields (or goggles) and a face shield should be worn when handling this substance. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Wear chemical resistant (impervious) gloves and a complete personal protective suit. Gloves and cloth 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.

8.3 Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|--------------------------------------|--|
| Appearance: | White flakes/powder |
| Odour: | Slight mild odour |
| Odour threshold: | no data available |
| pH: | 2.5 - 3.5 at 20 °C (68 °F, saturated solution) |
| Melting/Freezing point: | 121 - 125 °C (250 - 257 °F) - lit |
| Boiling point: | 249 °C (480 °F) @ 760 mm Hg |
| Flashpoint: | 121.9°C (251.4 °F) |
| Evaporation rate: | Not available |
| Flammability: | Not flammable |
| Vapour pressure: | 0.0011 hPa @ 20°C (68 °F) |
| Vapour density: | 4.22 (Air=1) |
| Specific density: | 1.321 at 20°C |
| Refractive index: | No data available |
| Solubility in water: | 3.5 g/l at 25 °C (77 °F) |
| Solubility in other solvents: | No data available |
| Partition coefficient: | log Pow:1.88 |
| Volatile by weight | Not available |
| Auto ignition temperature: | Not available |

Benzoic Acid

| | |
|-----------------------------------|--------------------------------|
| Decomposition temperature: | Not available |
| Viscosity | Not available |
| Explosive properties | Not considered to be explosive |
| Oxidising properties | Not considered to be oxidising |
| Dissociation Constant: | Not available |
| Molecular Weight | 122.12 |

9.2 Other information

Some of the number specified are typical values and do not represent a specification.

SECTION 10: Stability and reactivity

10.1 Reactivity

Not a reactive substance and no reactive hazards are expected.

10.2 Chemical stability

The product is stable.

10.3 Possibility of hazardous reactions

No hazardous reactions expected under normal conditions of use.

10.4 Conditions to avoid

Excessive heat and ignition sources. Avoid static discharge. Avoid dust formation.

10.5 Incompatible materials

Strong oxidizing agents, Strong bases, Strong reducing agents. Avoid contact with metals.

10.6 Hazardous decomposition products

Carbon dioxide, carbon monoxide.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Hazard via oral, inhalation, and dermal route

Acute toxicity

LD50 Oral - rat > 2,250 mg/kg; LC50 Inhalation - rat - 4 h > 12.2 mg/l; LD50 Dermal - rabbit > 2,000 mg/kg

Skin corrosion/irritation

Mild skin irritation – rabbit, 24 h

Serious eye damage/irritation

Risk of serious damage to eyes - rabbit.

Respiratory/skin sensitisation

No evidence of skin sensitization (Guinee Pig).

Germ cell mutagenicity

Not classified

Carcinogenicity

Not classified. Not listed or regulated by IARC, NTP, OSHA, or ACGIH

Reproductive toxicity

Not classified.

STOT-single exposure

Not classified

STOT-repeated exposure

Causes damage to Lungs through prolonged or repeated exposure by Inhalation – rat.
The NOAEL for local effects is < 25 mg/m³; The NOAEL for systemic effects is 250 mg/m³.

Aspiration hazard

Not classified.

Additional Information

RTECS: DG0875000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

11.2 Information on other hazards

No data available.

SECTION 12: Ecological information

12.1. Toxicity

Fish: 96 hr LC50 (Bluegill Sunfish): 44.6mg/L; 96 hr LC50 (Rainbow Trout): 47.3mg/L; Chronic NOEC >120 mg/L (28 days)

Invertebrates: 48 hr EC50: >100mg/L; 24 hr EC50: 102-500 mg/L; Chronic NOEC: >=25 mg/L (21 days)

Algae: 72 hr EC50: >33.1 mg/L; Chronic NOEC: EC10 = 3.4 mg/L (72 hr)

12.2 Persistence and degradability

Readily biodegradable and therefore is not Persistence.

12.3 Bioaccumulative potential

Log Kow = 1.88, Bio-concentration factor (BCF): 5.3, not bio-accumulative.

12.4 Mobility in soil

No specific information available

12.5 Results of PBT and vPvB assessment

The substance was found to be readily biodegradable under aerobic conditions, not a PBT or vPvB

12.6 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Dispose of waste in accordance with local/regional/national/international regulation.

Contaminated packaging

Incinerate in a properly permitted facility in accordance with federal, state and local regulation or regional authorities.

SECTION 14: Transport information

14.1 UN number

DOT (US): When shipped over 5000 lbs (2270 kg) in a single package:

UN number: 3077 Class: 9 Packing group: III

Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Benzoic acid)

Benzoic Acid

Reportable Quantity (RQ): 5000 lbs (2270 kg)

14.2 UN proper shipping name

ADR/RID, IMDG, IATA: Not restricted

14.3 Transport hazard class(es)

Not applicable

14.4 Packing group

Not applicable

14.5 Environmental hazards

Marine pollutant - IMDG: No

14.6 Special precautions for user

No dangerous good in sense of these transport regulations.

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

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

National regulations - EC member states

Not known.

National regulations – USA

TSCA Inventory: Active

HMIS Rating

Health: 2 Flammability: 1 Reactivity (Stability): 0 Personal Protection: X

NFPA Rating

Health: 2 Flammability: 1 Reactivity (Stability): 0 Specific Hazard: X

National regulations – Canada

Canadian Workplace Hazardous Material Information System (WHMIS) classification: D2B

15.2 Chemical Safety Assessment

For this substance a chemical safety assessment has been carried out.

SECTION 16: Other information

16.1 Indication of changes

V1: 2019-11-08 This is the first SDS under REACH

V2: 2022-05-17, review and minor format changes.

V3: 2022-10-27, revision according to COMMISSION REGULATION (EU) 2020/878

V4: 2023-02-14, updated section 3, 14, 16.

16.2 Key literature references and sources for data

Dossier and Chemical Safety Report (CSR) submitted to ECHA under REACH

EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP), 2015/830 & 2020/878

Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)) and Appendix B, C, D

Information on Chemicals, ECHA website: <http://echa.europa.eu/web/guest/home>

Product Data Sheet and SDS information from manufacturer.

Benzoic Acid

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

16.3 Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Not a mixture.

16.4 List of relevant hazard statements and/or precautionary statements which are not written out in full under Sections 2 to 15

Precautionary statements:

P270: Do not eat, drink or smoke when using this product.

P321: Call a POISON CENTER or doctor/physician if you feel unwell.

P332+P313: If skin irritation occurs: Get medical advice/attention.

P362: Take off contaminated clothing.

P310: Immediately call a POISON CENTER/doctor.

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

16.5 Contact Information

| | |
|--|---|
| SDS or Regulatory information, contact: Dawei Li Velsicol Chemical LLC 1199 Warford Street Memphis, TN 38108 Phone: 901-323-6226, ext. 124 Fax: 901-324-5897 dli@velsicol.com | Technical or Product Support Information, contact: Sherman Friedman Velsicol Chemical LLC 10400 W. Higgins Road Rosemont, IL 60018 U.S.A. Phone: 847-635-3486 Fax: 847-298-9018 Email: sfriedman @velsicol.com |
|--|---|

16.6 Further information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision.

It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.