

SAFETY DATA SHEET

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

1.1. Product identifier Benzyl Benzoate

Synonyms: BzBz

Chemical Abstracts Registry No: 120-51-4

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

Preparation of formulations, Processing Aid

1.3. Details of the supplier of the safety data sheet

Vertellus LLC
201 North Illinois Street, Suite 1800
Indianapolis, Indiana 46204 USA
1-336-292-1781

e-mail Address: sds@vertellus.com

1.4. Emergency telephone number

Vertellus: 1-336-292-1781

CHEMTREC (USA): +1-800-424-9300 (collect calls accepted)

CHEMTREC (International): +1-703-527-3887 (collect calls accepted)

NRCC (China): +86 25 85477110

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture (According to Regulation (EC) No 1272/2008, 29 CFR 1910.1200 and the Globally Harmonized System)

Environmental Chronic Category 2
Acute Toxicity Oral Category 4

2.2. Label elements

Hazard Symbols (Pictogram):



Signal Word:

Warning

Hazard Precautions:

H302 - Harmful if swallowed.
H411 - Toxic to aquatic life with long lasting effects.

Prevention Precautionary Statements:

P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P273 - Avoid release to the environment.

First Aid Precautionary Statements:

P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330 - Rinse mouth.
P391 - Collect spillage.

Disposal Precautionary Statements:

P501 - Dispose of contents/container in accordance with local/regional/national/international regulation for hazardous wastes.

SAFETY DATA SHEET

2.3. Other hazards

Other Hazards: Not applicable.

SECTION 3: Composition/information on ingredients

3.1. Substances or 3.2. Mixtures

Ingredient	CAS Number	Concentration (weight %)	EC Number	CLP Inventory/ Annex VI	EU CLP Classification (1272/2008)
Benzyl Benzoate	120-51-4	~ 100	204-402-9	607-085-00-9	Acute Tox. 4; H302 Aquatic Chronic 2; H411

NOTE: See Section 8 for exposure limit data for these ingredients. See Section 15 for trade secret information (where applicable).

SECTION 4: First aid measures

4.1. Description of first aid measures

Skin Contact: Wash with soap and water. Get medical attention if irritation develops or persists.

Eye Contact: Immediately flush the eyes with plenty of water for at least 15 minutes. Call a physician.

Inhalation: Remove from exposure. If not breathing, give artificial respiration and call a physician.

Ingestion: If swallowed, do not induce vomiting. Get prompt medical attention. Do not give anything by mouth to an unconscious person.

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

Acute: May be harmful if ingested in sufficient quantities.

Delayed Effects: None known.

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

Note to Physician: No specific indications. Treatment should be based on the judgment of the physician in response to the reactions of the patient.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Appropriate Extinguishing Media: Foam, Dry chemical, Carbon dioxide, Water spray

5.2. Special hazards arising from the substance or mixture

Hazardous Products of Combustion: As with other organic materials, combustion will produce carbon monoxide and carbon dioxide.

Potential for Dust Explosion: Not applicable.

Special Flammability Hazards: If heated, container may burst.

SAFETY DATA SHEET

5.3. Advice for firefighters

Basic Fire Fighting Guidance: Wear self-contained breathing apparatus and protective clothing. Normal firefighting procedures may be used.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuation Procedures: Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Special Instructions: See Section 8 for personal protective equipment recommendations. Remove all contaminated clothing to prevent further absorption. Decontaminate affected personnel using the first aid procedures in Section 4. Leather shoes that have been saturated must be discarded.

6.2. Environmental precautions

Prevent releases to soils, drains, sewers and waterways.

6.3. Methods and material for containment and cleaning up

Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Remove all ignition sources. Ventilate the area of spill or leak. Wear protective equipment during clean-up. For small spills, use suitable absorbent material and collect for later disposal. For large spills, the area may require diking to contain the spill. Material can then be collected (eg., suction) for later disposal. After collection of material, flush area with water. Dispose of the material in accordance with standard practice for disposal of potentially hazardous materials as required by applicable federal, state or local laws. Do not allow the spilled product to enter public drainage system or open waterways.

6.4. Reference to other sections

Refer to section 8 for information on selecting personal protective equipment. Refer to section 13 for information on spilled product, absorbent and clean up material disposal instructions.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for Unique Hazards: Not applicable.

Practices to Minimize Risk: Wear appropriate protective equipment when performing maintenance on contaminated equipment. Wash hands thoroughly before eating or smoking after handling this material. Do not eat, drink or smoke in work areas. Prevent contact with incompatible materials. Avoid spills and keep away from drains. Handle in a manner to prevent generation of aerosols, vapors or dust clouds.

Special Handling Equipment: Not applicable.

7.2. Conditions for safe storage, including any incompatibilities

Storage Precautions & Recommendations: This product should be stored at ambient temperature in a dry, well-ventilated location. Keep container closed when not in use.

Dangerous Incompatibility Reactions: Incompatible with oxidizing materials

Incompatibilities with Materials of Construction: None known

7.3. Specific end use(s)

SAFETY DATA SHEET

If a chemical safety assessment has been completed an exposure scenario is attached as an annex to this Safety Data Sheet. Refer to this annex for the specific exposure scenario control parameters for uses identified in subsection 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limit: Not applicable.
 Air Monitoring Method: Not required

8.2. Exposure controls

Also see the annex to this SDS (if applicable) for specific exposure scenario controls.

Other Engineering Controls: All operations should be conducted in well-ventilated conditions. Local exhaust ventilation should be provided.

Personal Protective Equipment: Gloves conforming to at least EN374; long sleeved shirts and trousers without cuffs or impervious clothing (EN 14605); Half mask (EN140) or full face (EN136) respirators with organic vapor/acid gas cartridges and particle filters and chemical goggles (EN166) or face shield.

Respirator Caution: Observe OSHA regulations for respirator use (29 CFR 1910.134) or equivalent guidance. Air-purifying respirators must not be used in oxygen-deficient atmospheres.

Thermal Hazards: Not applicable.

Environmental Exposure Controls: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance, State & Odor (ambient temperature):	Clear, oily liquid at or above 25°C; colorless to pale solid at or below 20°C.		
Vapor Pressure:	4.5 MMHG @ 156°C	Evaporation Rate:	< 1 (Butyl Acetate = 1)
Specific Gravity or Density:	1.12 @ 25°C	Vapor Density (air = 1):	7.3
Boiling Point:	324 °C (615 °F)	Freezing / Melting Point:	20 °C (68 °F)
Solubility in Water:	Insoluble	Octanol / Water Coefficient:	No data available.
pH:	No data available.	Odor Threshold:	No data available.
Viscosity:	No data available.	Autoignition Temperature:	480°C (896°F)
Flash Point and Method:	146°C (295°F) COC	Flammable Limits:	No data available.
Flammability (solid, gas):	No data available.	Decomposition Temperature:	No data available.
Explosive Properties:	Not explosive.	Oxidizing Properties:	Not an oxidizer.

SAFETY DATA SHEET

9.2. Other information

Not applicable.

SECTION 10: Stability and reactivity

<u>10.1. Reactivity</u>	Not classified as dangerously reactive.
<u>10.2. Chemical stability</u>	Stable
<u>10.3. Possibility of hazardous reactions</u>	Not prone to hazardous polymerization
<u>10.4. Conditions to avoid</u>	No data.
<u>10.5. Incompatible materials</u>	Incompatible with oxidizing materials
<u>10.6. Hazardous decomposition products</u>	As with other organic materials, combustion will produce carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute Oral LD ₅₀ :	Oral LD ₅₀ (rat) = 2804 mg/kg	Corning Hazleton, 1995
Acute Dermal LD ₅₀ :	Dermal LD ₅₀ (rat) > 5000 mg/kg	Corning Hazleton, 1995
Acute Inhalation LC ₅₀ :	> 5.2 mg/L	
Skin Irritation:	May cause slight irritation.	
Eye Irritation:	May cause slight irritation.	
Skin Sensitization:	No data available.	
Mutagenicity:	This product was found to be non-mutagenic in various Ames assays, both with and without metabolic activation.	
Reproductive / Developmental Toxicity:	In a 21-day feed study in Wistar rats, no developmental effects were reported in rats fed up to 1% benzyl benzoate in the diet during gestation days 0 to 21.	
Carcinogenicity:	This material is not listed by IARC, NTP or OSHA as a carcinogen. No test data is available that indicates this material is a carcinogen.	
Target Organs:	None known	
Aspiration Hazard:	Based on physical properties, not likely to be an aspiration hazard.	
Primary Route(s) of Exposure:	Skin contact and absorption, eye contact, and inhalation. Ingestion is not likely to be a primary route of exposure.	
Most important symptoms and effects, both acute and delayed	May be harmful if ingested in sufficient quantities. Delayed Effects: None known.	
Additive or Synergistic effects:	None known.	

SECTION 12: Ecological information

SAFETY DATA SHEET

<u>12.1. Toxicity</u>	EC0 (24H) Daphnia magna = 2 mg/L EC0 (48H) Daphnia magna = 0.05 mg/L
<u>12.2. Persistence and degradability</u>	Readily biodegradable in aerobic screening assays using activated sludge inoculum (OECD 301C). Not expected to bioaccumulate.
<u>12.3. Bioaccumulative potential</u>	No data available
<u>12.4. Mobility in soil</u>	No data available
<u>12.5. Results of PBT and vPvB assessment</u>	This substance is not a PBT or vPvB.
<u>12.6. Other adverse effects</u>	None known

SECTION 13: Disposal considerations

13.1. Waste treatment methods

US EPA Waste Number:	Non-Hazardous
Waste Classification: (per US regulations)	The waste may be classified as "special" or hazardous per State regulations.
Waste Disposal:	NOTE: Generator is responsible for proper waste characterization. State hazardous waste regulations may differ substantially from federal regulations. Dispose of this material responsibly, and in accordance with standard practice for disposal of potentially hazardous materials as required by applicable international, national, regional, state or local laws, and environmental protection duty of care principles. Do NOT dump into any sewers, on the ground, or into any body of water. For disposal within the EC, the appropriate classification code according to the European Community List of Wastes should be used. Note that disposal regulations may also apply to empty containers and equipment rinsates.

SECTION 14: Transport information

The following information applies to all shipping modes (DOT/IATA/ICAO/IMDG/ADR/RID/ADN), unless otherwise indicated:

14.1. UN number	Not applicable	14.2. UN proper shipping name	Chemicals n.o.s. (Benzyl Benzoate)
14.3. Transport hazard class(es)	Not applicable	14.4. Packing group	Not applicable
14.5. Environmental hazards	Not applicable		
14.6. Special precautions for user	For transport OUTSIDE the United States and bulk shipments, the proper shipping name is: UN3082, Environmentally Hazardous substance, liquid, n.o.s., (Benzyl Benzoate), 9, PG III (Marine Pollutant).		
NA Emergency Guidebook Numbers:	Not applicable	IMDG EMS:	S-F; F-A
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code			Not applicable.

SECTION 15: Regulatory information

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

Chemical Inventory Lists: Status:

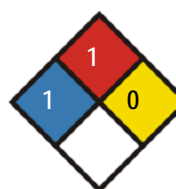
SAFETY DATA SHEET

USA TSCA:	Listed	EINECS:	204-402-9
Canada(DSL/NDSL):	DSL	Japan:	(3)-1389
Korea:	KE-02782	Australia:	Listed
China:	Listed	Philippines:	Listed
Taiwan:	Not listed.	New Zealand:	Listed
German Water Hazard Classification:	ID Number 5203, hazard class 2 - hazard to waters (<i>Benzyl Benzoate</i>)		
SARA 313:	Not listed.		
Reportable Quantities:	Not applicable.		
Other Regulatory Listings:	Not applicable.		

HMIS IV:

HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0

NFPA:



15.2. Chemical safety assessment

Not applicable.

SECTION 16: Other information

Key Data Sources: In-house company data and knowledge, e-chem Portal and Sci-Finder.

Classification Method: On basis of test data

Legend of Abbreviations:

ACGIH = American Conference on Governmental Industrial Hygienists.

CAS = Chemical Abstracts Service.

CFR = Code of Federal Regulations.

DSL/NDSL = Domestic Substances List/Non-Domestic Substances List.

EC = European Community.

EINECS = European Inventory of Existing Commercial Chemical Substances.

ELINCS = European List of Notified Chemical Substances.

EU = European Union.

GHS = Globally Harmonized System.

LC = Lethal Concentration.

LD = Lethal Dose.

NFPA = National Fire Protection Association.

NIOSH = National Institute of Occupational Safety and Health.

NTP = National Toxicology Program.

OSHA = Occupational Safety and Health Administration

PEL = Permissible Exposure Limit.

RQ = Reportable Quantity.

SARA = Superfund Amendments and Reauthorization Act of 1986.

TLV = Threshold Limit Value.

WHMIS = Workplace Hazardous Materials Information System.

Important Note: Please note that the information contained herein is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. The information contained herein may change without prior notice. **THIS SAFETY DATA SHEET SUPERSEDES ALL PREVIOUS EDITIONS.**

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Issued by: Regulatory Management Department **Email:** SDS@Vertellus.com

Revision Details: Revised classifications, and risk and safety phrases in sections 2 & 3. Revised transportation in section 14.