Chemical Safety Data Sheet MSDS / SDS

Benzyl acetate SDS

Revision Date:2024-04-25 Revision Number:1

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

Product identifier

Product name: Benzyl acetate

CAS: 140-11-4

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

Relevant identified uses: For R&D use only. Not for medicinal, household or other use.

Uses advised against: none

Company Identification

Company: Chemicalbook.in

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SECTION 2: Hazards identification

Classification of the substance or mixture

Hazardous to the aquatic environment, long-term (Chronic) - Category Chronic 3

GHS label elements, including precautionary statements

Signal word: No signal word

Hazard statement(s)

H412 Harmful to aquatic life with long lasting effects

Precautionary statement(s)

Prevention

P273 Avoid release to the environment.

Response

none

Storage

none

Disposal

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards which do not result in classification

no data available

SECTION 3: Composition/information on ingredients

Substance

Chemical name:	Benzyl acetate
Common names and synonyms:	Benzyl acetate
CAS number:	140-11-4
EC number:	205-399-7
Concentration:	100%

SECTION 4: First aid measures

Description of necessary first-aid measures

If inhaled

Fresh air, rest. Refer for medical attention.

Following skin contact

Remove contaminated clothes. Rinse and then wash skin with water and soap.

Following eye contact

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

Following ingestion

Rinse mouth. Do NOT induce vomiting. Give one or two glasses of water to drink. Rest. Refer for medical attention .

Most important symptoms/effects, acute and delayed

Harmful if inhaled. May be harmful if swallowed or absorbed through the skin. Vapor or mist is irritating to the eyes, mucous membrane and upper respiratory tract. (USCG, 1999)

Indication of immediate medical attention and special treatment needed, if necessary

Absorption, Distribution and Excretion

Benzyl acetate was absorbed from the gastrointestinal tract of rats and mice, with approximately 90% of the administered dose recovered as various metabolites in the urine within 24 hr. ... This capacity for absorption, metabolism, and disposition was unaffected by the amount or number of doses administered.

SECTION 5: Firefighting measures

Suitable extinguishing media

Alcohol foam, carbon dioxide.

Specific hazards arising from the chemical

This chemical is combustible. (NTP, 1992)

Special protective actions for fire-fighters

Use water spray, powder, alcohol-resistant foam, carbon dioxide.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ventilation. Cover the spilled material with earth or sand. Collect leaking and spilled liquid in covered containers as far as possible. Wash away remainder with plenty of water.

Environmental precautions

Ventilation. Cover the spilled material with earth or sand. Collect leaking and spilled liquid in covered containers as far as possible. Wash away remainder with plenty of water.

Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

SECTION 7: Handling and storage

Precautions for safe handling

NO open flames. Above 90°C use a closed system and ventilation. Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

Conditions for safe storage, including any incompatibilities

Separated from strong oxidants. Ventilation along the floor.

SECTION 8: Exposure controls/personal protection

Control parameters

Occupational Exposure limit values

TLV: 10 ppm as TWA; A4 (not classifiable as a human carcinogen)

Biological limit values

no data available

Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear safety spectacles.

Skin protection

Protective gloves.

Respiratory protection

Use ventilation, local exhaust or breathing protection.

Thermal hazards

no data available

SECTION 9: Physical and chemical properties and safety characteristics

Physical state:	Liquid.
Colour:	Clear, colourless.
Odour:	PEAR-LIKE ODOR
Melting point/freezing point:	-51.5 °C. Remarks:With an error of.

Boiling point or initial boiling point and boiling range:	213.5 °C. Atm. press.: 101 325 Pa.
Flammability:	Combustible.
Lower and upper explosion limit/flammability limit:	no data available
Flash point:	102 °C. Atm. press.: 101 325 Pa.
Auto-ignition temperature:	460 °C. Atm. press.: 101 325 Pa.
Decomposition temperature:	no data available
pH:	no data available
Kinematic viscosity:	dynamic viscosity (in mPa s) = 4.5. Temperature: 25.0°C.
Solubility:	less than 1 mg/mL at 73° F (NTP, 1992)
Partition coefficient n-octanol/water:	log Pow = 1.96. Temperature: 25 °C. Remarks: Temperature and pressure not listed in reference.
Vapour pressure:	0.004 Pa. Temperature: -51.5 °C.; 31 973 hPa. Temperature: 426 °C.
Density and/or relative density:	1.054 g/cm3. Temperature: 25 °C.
Relative vapour density:	5.1 (NTP, 1992) (Relative to Air)
Particle characteristics:	no data available

SECTION 10: Stability and reactivity

Reactivity

Decomposes on burning. This produces irritating fumes. Reacts with strong oxidants. This generates fire and explosion hazard.

Chemical stability

no data available

Possibility of hazardous reactions

Combustible liquid.BENZYL ACETATE is an ester. Esters react with acids to liberate heat along with alcohols and acids. Strong oxidizing acids may cause a vigorous reaction that is sufficiently exothermic to ignite the reaction products. Heat is also generated by the interaction of esters with caustic solutions. Flammable hydrogen is generated by mixing esters with alkali metals and hydrides. This chemical is incompatible with strong oxidizing agents. It is also incompatible with acids, bases and reducing agents. (NTP, 1992)

Conditions to avoid

no data available

Incompatible materials

STABILITY: This chemical may be sensitive to light. Solutions of this chemical in water, DMSO, 95% ethanol or acetone should be stable for 24 hours under normal lab conditions.REACTIVITY: This chemical is incompatible with strong oxidizing agents. It is also incompatible with acids, bases and reducing agents. (NTP, 1992)

Hazardous decomposition products

When heated to decomposition it emits irritating fumes.

SECTION 11: Toxicological information

Acute toxicity

Oral: Rat (Osborne-Mendel) oral 2.49 g/kg

Inhalation: no data available

Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

Evaluation: No epidemiological data relevant to the carcinogenicity of benzyl acetate were available. There is limited evidence in experimental animals for the carcinogenicity of benzyl acetate. Overall evaluation: Benzyl acetate is not classifiable as to its carcinogenicity in humans (Group 3).

Reproductive toxicity

no data available

STOT-single exposure

The vapour is irritating to the eyes and respiratory tract. The substance may cause effects on the central nervous system. Exposure far above the OEL could cause unconsciousness.

STOT-repeated exposure

The substance defats the skin, which may cause dryness or cracking. The substance may have effects on the kidneys.

Aspiration hazard

A harmful contamination of the air will be reached rather slowly on evaporation of this substance at 20°C; on spraying or dispersing, however, much faster.

SECTION 12: Ecological information

Toxicity

Toxicity to fish: LC50 - Oryzias latipes - 4 mg/L - 96 h.

Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna - 17 mg/L - 48 h.

Toxicity to algae: EC50 - Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) - 110 mg/L - 72 h.

Toxicity to microorganisms: EC50 - activated sludge - 855 mg/L - 3 h. Remarks:Respiration rate.

Persistence and degradability

Benzyl acetate reached 92 to 96% of its theoretical BOD over a period of 4 weeks using an activated sludge seed and an initial chemical concentration of 100 mg/l(1).

Bioaccumulative potential

An estimated BCF of 18 was calculated for benzyl acetate(SRC), using a log Kow of 1.96(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests that bioconcentration in aquatic organisms is low(SRC).

Mobility in soil

The Koc of benzyl acetate is estimated as approximately 180(SRC), using a log Kow of 1.96(1) and a regression-derived equation(2,SRC). According to a classification scheme(3), this estimated Koc value suggests that benzyl acetate is expected to have moderate mobility in soil(SRC).

Other adverse effects

no data available

SECTION 13: Disposal considerations

Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14: Transport information

UN Number

ADR/RID: Not dangerous goods. (For reference only, please check.)
IMDG: Not dangerous goods. (For reference only, please check.)
IATA: Not dangerous goods. (For reference only, please check.)

UN Proper Shipping Name

ADR/RID: Not dangerous goods. (For reference only, please check.)
IMDG: Not dangerous goods. (For reference only, please check.)
IATA: Not dangerous goods. (For reference only, please check.)

Transport hazard class(es)

ADR/RID: Not dangerous goods. (For reference only, please check.)
IMDG: Not dangerous goods. (For reference only, please check.)
IATA: Not dangerous goods. (For reference only, please check.)

Packing group, if applicable

ADR/RID: Not dangerous goods. (For reference only, please check.)
IMDG: Not dangerous goods. (For reference only, please check.)
IATA: Not dangerous goods. (For reference only, please check.)

Environmental hazards

ADR/RID: No
IMDG: No
IATA: No

Special precautions for user

no data available

Transport in bulk according to IMO instruments

no data available

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

European Inventory of Existing Commercial Chemical Substances (EINECS)

Listed.

EC Inventory

Listed.

United States Toxic Substances Control Act (TSCA) Inventory

Listed.

China Catalog of Hazardous chemicals 2015

Not Listed.

New Zealand Inventory of Chemicals (NZIoC)

Listed.

(PICCS)

Listed.

Vietnam National Chemical Inventory

Listed.

IECSC)

Listed.

Korea Existing Chemicals List (KECL)

Listed.

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

References

IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

ECHA - European Chemicals Agency, website: https://echa.europa.eu/