

BFGoodrich Kalama Emergency Phone 1-360-673-2550 CHEMTREC 1-800-424-9300

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**PRODUCT INFORMATION**

**CHEMICAL NAME:** BENZYL ACETATE  
**SYNONYMS:** Acetic acid, benzyl ester; Benzyl ethanoate  
Acetic acid, phenyl methyl ester  
**CHEMICAL FAMILY:** Aromatic Benzyl Esters  
**MOLECULAR FORMULA:** C<sub>6</sub>H<sub>5</sub>CH<sub>2</sub>OCOCH<sub>3</sub> (C<sub>9</sub>H<sub>10</sub>O<sub>2</sub>)  
**MOLECULAR WEIGHT:** 150.2  
**CAS REG #:** 140-11-4

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**SUMMARY OF HAZARDS**

**WARNING!** LIQUID MAY BE IRRITATING TO SKIN  
LIQUID IS IRRITATING TO EYES AND MUCOUS MEMBRANES  
VAPOR IS IRRITATING TO THROAT AND LUNGS  
PROLONGED INHALATION OF VAPORS MAY CAUSE SERIOUS HEALTH EFFECTS  
BREATHING HIGH CONCENTRATIONS OF VAPOR MAY CAUSE ANESTHETIC EFFECTS

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**PHYSICAL PROPERTIES**

**APPEARANCE / ODOR:** Colorless liquid with a floral odor.  
**BOILING POINT:** 415°F (213°C)  
**MELTING POINT:** -61°F (-52°C)  
**VAPOR PRESSURE:** < 0.1 mm Hg @ 68°F  
**SOLUBILITY IN WATER:** Negligible  
**SPECIFIC GRAVITY:** 1.055 @ 77°F (H<sub>2</sub>O=1)  
**WEIGHT PER GALLON:** 8.8 #  
**EVAP RATE:** << 1 (Butyl Acetate = 1)  
**VAPOR DENSITY:** 5.2 (Air=1)  
**% VOLATILE:** 100

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**FIRE AND EXPLOSION HAZARD INFORMATION**

**FLASH POINT (TCC):** 207°F (97°C)      **FLAMMABLE LIMITS:** Not determined  
**AUTOIGNITION TEMP:** 860°F (460°C)      **DECOMPOSITION TEMP:** Not determined

**FIRE and EXPLOSION HAZARDS:** Decomposition under fire conditions will generate carbon monoxide and may generate other toxic vapors.

**FIRE FIGHTING INFORMATION:** Use CO<sub>2</sub>, foam, or dry chemical to extinguish fire. Water can be used to cool a fire, but for extinguishment, foam or dry chemical are preferred. Avoid spreading liquid and fire by water flooding. Wear self-contained, positive pressure breathing apparatus and full fire fighting protective clothing. Use water to keep containers cool.

V HAZARD RATINGS FOR BENZYL ACETATE

<u>NFPA</u>	<u>HEALTH</u>	1	<u>HMIS</u>	<u>HEALTH</u>	2
<u>HAZARD</u>	<u>FLAMMABILITY</u>	1	<u>RATINGS</u>	<u>FLAMMABILITY</u>	1
<u>RATINGS</u>	<u>REACTIVITY</u>	0	<u>(NPCA &amp; NAPIM)</u>	<u>REACTIVITY</u>	0

VI HEALTH HAZARD INFORMATION

LD50 (ORAL RAT): 2490 mg / kg

THRESHOLD LIMIT VALUE (TLV): Benzyl acetate is not listed as having either a TW or a STEL in the 1991/92 edition of the ACGIH. Several references, however, suggest that a threshold limit value (TLV) of 15 ppm was set prior to 1961. It is reported that at a level of 15 ppm, benzyl acetate has an irritant and narcotic effect.

CARCINOGEN ( IARC / NTP / 29CFR ): I.A.R.C. (1986) reports limited evidence that benzyl acetate causes cancer in laboratory animals when administered by gavage. Toxicology and carcinogenesis studies of benzyl acetate were recently completed by the National Toxicology Program. "Under the conditions of the 2-year feed studies, there was no evidence of carcinogenic activity of benzyl acetate in male or female F334/N rats receiving 3,000, 6,000, or 12,000 ppm, however rats may have tolerated higher doses. There was no evidence of carcinogenic activity of benzyl acetate in male or female B6C3F<sub>1</sub> mice receiving 330, 1,000, or 3,000 ppm."

"In previous studies by the NTP, benzyl acetate increased the incidences of pancreatic acinar cell adenomas in male rats and incidences of hepatocellular adenomas and forestomach neoplasms in male and female mice. Because of the confounding effect of corn oil on the incidences of pancreatic neoplasms and because of the controversy over the gavage route of administration, the NTP decided to restudy benzyl acetate using the dosed feed route of administration."

ACUTE HEALTH HAZARDS:

Inhalation: Inhalation of concentrated vapor will irritate throat and lungs. Prolonged inhalation of vapors may cause serious health effects including shortness of breath, loss of coordination, and loss of consciousness. Breathing high concentrations of vapor may also cause anesthetic effects.

Eye Contact: Vapor is irritating to the eyes.

Skin Contact: May cause skin irritation. A case of dermatitis as been recorded, although other tests have not generated sensitization reactions.

Ingestion: General intestinal irritation, vomiting, and diarrhea are reported to result from ingestion.

(please see page 3 for additional data)

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**CHRONIC HEALTH HAZARDS:**

**Inhalation:** Chronic inhalation studies with cats showed irritation, gradual weakness, loss of appetite and weight, drowsiness, and death.

**Ingestion:** The NTP study of benzyl acetate reported that "Nasal lesions associated with benzyl acetate exposure in male and female mice included nasal mucosa atrophy and degeneration (primarily of the olfactory epithelium), cystic hyperplasia of the nasal submucosal gland, and luminal exudate and pigmentation of the mucosal epithelium."

No other CHRONIC HEALTH hazard information is available.

**EMERGENCY FIRST AID:**

**Inhalation:** If overcome by exposure, remove to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention.

**Eye Contact:** In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Obtain emergency medical attention.

**Skin Contact:** Remove contaminated clothing as needed. Wash skin thoroughly with mild soap and water. Obtain medical attention if irritation develops.

**Ingestion:** If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

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**VII PROTECTIVE EQUIPMENT AND EXPOSURE CONTROL METHODS**

Use with adequate local exhaust ventilation. In confined or enclosed spaces, use NIOSH approved respiratory protection. Use chemical resistant apron, gloves, and other impervious clothing to avoid skin contact. Use splash goggles and face shield when eye contact may occur. Provide safety shower, equipped with an eye wash fountain in the immediate vicinity of any potential exposure. Use good personal hygiene practices. Wash hands before eating, drinking, or smoking, or using toilet facilities. Promptly remove contaminated clothing and wash thoroughly before reuse.

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**VIII REACTIVITY DATA**

**STABILITY:** Stable      **HAZARDOUS POLYMERIZATION:** Will not occur

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**INCOMPATIBLE MATERIALS:**      Strong oxidizing agents and strong alkalies.

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**HAZARDOUS DECOMPOSITION PRODUCTS:**      Decomposition under fire conditions will generate carbon monoxide and other potentially toxic vapors.

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**SPILL OR LEAK PROCEDURES**

Remove sources of ignition, stop release, and provide adequate ventilation. Prevent flow to sewer and public waters. Recover free product, if possible. Cover spill with inert, non-combustible absorbent material and remove to disposal container. Report spill as per regulatory requirements. Leaking drum should be emptied or placed into an oversized (recovery) drum.

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**WASTE DISPOSAL**

Disposal must be made in accordance with applicable governmental regulations. Do not contaminate any streams, lakes, or ponds.

XI

**ADDITIONAL PRECAUTIONS**

Store as a NFPA Class IIIB liquid. Keep fire and sparks away from drums. Since empty containers retain product residue, do not cut, drill, grind, or weld on or near the container until it is thoroughly cleaned.

Isolate, vent, drain, wash and purge systems or equipment before maintenance or repair. Remove all ignition sources. Check atmosphere for explosiveness and oxygen deficiencies. Use adequate personal protective equipment. Comply with regulations governing confined space entry.

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**OSHA / SARA TITLE III / TSCA INFORMATION**

We have evaluated Benzyl Acetate using the criteria in OSHA's Hazard Communication Rule (29CFR 1910.1200). Benzyl Acetate is considered hazardous under this OSHA standard.

Benzyl Acetate is not listed as an Extremely Hazardous Substance under Section 302 of SARA Title III.

As an OSHA Hazardous Substance, Benzyl Acetate is subject to the reporting requirements of Sections 311 or 312 of SARA Title III.

Benzyl Acetate does not contain ingredients (at a level of 1% or more) on the List of Toxic Chemicals of SARA Title III.

Benzyl Acetate is included in the current TSCA Inventory List.

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