

Section 1. Product and Company Identification

**Product Name** Potassium Benzoate  
**CAS Number** 0000582-25-2

**Parchem - fine & specialty chemicals**  
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**New Rochelle, NY 10801**  
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Collect Calls Accepted

Section 2. Hazards Identification

**Classification of the substance or mixture**

**Classification of the chemical in accordance with 29 CFR 1910.1200(d)**

Eye Irritation, category 2  
Combustible Dust (OSHA Defined)

**GHS Label Elements**

**Pictograms:**



**Signal word:** Warning

**Hazard and precautionary statements**

**Hazard statements**

H319 Causes serious eye irritation.  
USH001 May form combustible dust concentrations in air.

**Precautionary statements**

P264 Wash thoroughly after handling.  
P280 Wear eye protection/face protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313 If eye irritation persists: Get medical advice/attention.

**Notes:** No Additional Information

**Hazards not otherwise classified:** No Additional Information



**Information in accordance with 29 CFR 1910.1200 in effect before May 25, 2012**

**Potential physical and environmental effects:** May form combustible dust concentrations in air.

**Potential health effects - Acute health effects:** Causes serious eye irritation. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. Dust inhalation may cause respiratory irritation. Repeated or prolonged skin contact may cause irritation. Ingestion may cause irritation.

**Potential health effects - Chronic health effects:** Prolonged or repeated contact may irritate the skin, causing dermatitis.

Section 3. Composition / Information on Ingredients

**Common Name** Potassium Benzoate  
**Synonym(s)** Benzoic acid potassium salt  
**CAS Number** 0000582-25-2

COMPONENT	CAS NUMBER	CONCENTRATION
Potassium Benzoate	0000582-25-2	95 - 100%

Section 4. First Aid Measures

**Description of first aid measures**

**General:** If irritation or other symptoms occur or persist from any route of exposure, remove the affected individual from the area: see a physician/get medical attention.

**Eye contact:** Immediately flush eyes with plenty of clean water for an extended time, not less than fifteen (15) minutes. Flush longer if there is any indication of residual chemical in the eye. Ensure adequate flushing of the eyes by separating the eyelids with fingers and roll eyes in a circular motion. If eye irritation persists: Get medical advice/attention.

**Skin contact:** Wash the affected area thoroughly with plenty of soap and water. Get medical attention if symptoms occur.

**Inhalation:** If affected, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a POISON CENTER or doctor/physician if you feel unwell.

**Ingestion:** Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse out the mouth with water.

Get medical attention immediately.

**Protection of first aid responders:** Wear proper personal protective clothing and equipment.

**Most important symptoms and effects, both acute and delayed:** Coughing, Irritation. Preexisting sensitization, skin and/or respiratory disorders or diseases may be aggravated. See section 11 for additional information.

**Indication of any immediate medical attention and special treatment needed, if necessary:** Treat symptomatically.



## Section 5. Firefighting Measures

**NFPA flammability class:** N/A (Combustible solid)

### Extinguishing media

**Suitable:** Use water spray, dry chemical, or foam. Carbon dioxide may be ineffective on larger fires due to a lack of cooling capacity which may result in reignition.

**Unsuitable:** Avoid hose streams or any method which will create dust clouds.

### Special hazards arising from the chemical

**Unusual fire/explosion hazards:** Concentrated dust/air combinations may produce explosive conditions. As with all organic dusts, fine particles suspended in air in critical proportions and in the presence of an ignition source may ignite and/or explode.

Dust may be sensitive to ignition by electrostatic discharge, electrical arcs, sparks, welding torches, cigarettes, open flame, or other significant heat sources. As a precaution, implement standard safety measures for handling finely divided organic powders. See Section 7 for suggested measures.

**Hazardous combustion products:** Irritating or toxic substances may be emitted upon burning, combustion or decomposition. See section 10 for additional information.

**Special protective equipment and precautions for fire-fighters:** Water spray (fog) can be used to absorb heat and to cool and protect surrounding exposed material. Avoid hose streams or any method which will create dust clouds. Wear self-contained breathing apparatus (SCBA) equipped with a full facepiece and operated in a pressure-demand mode (or other positive pressure mode) and approved protective clothing. Personnel without suitable respiratory protection must leave the area to prevent significant exposure to hazardous gases from combustion, burning or decomposition. In an enclosed or poorly ventilated area, wear SCBA during cleanup immediately after a fire as well as during the attack phase of firefighting operations. See section 9 for additional information.

## Section 6. Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures:** See Section 8 for recommendations on the use of personal protective equipment. If spilled in an enclosed area, ventilate. Avoid raising powdered material due to explosion hazard. Use spark-proof and explosion-proof equipment. If inhalation of dust cannot be avoided, wear an approved particulate respirator. Personal Protective Equipment must be worn.

**Environmental precautions:** Do not flush product into public sewer, water systems or surface waters.

**Methods and materials for containment and cleaning up:** Contain spill. Wear proper personal protective clothing and equipment. Using care to avoid dust generation, vacuum or sweep into a closed container for reuse or disposal. Use approved industrial vacuum cleaner for removal. Avoid causing dust. Place into labeled, closed container; store in safe location to await disposal. Change contaminated clothing and launder before reuse.



## Section 7. Handling and Storage

**Precautions for safe handling:** As with any chemical product, use good laboratory/workplace procedures. Wash thoroughly after handling this product. Always wash up before eating, smoking or using the facilities. Use under well-ventilated conditions. Avoid eye and skin contact. Avoid drinking, tasting, swallowing or ingesting this product. Avoid routine inhalation of dust of any kind. Exercise care when emptying containers, sweeping, mixing or doing other tasks which can create dust. Wash contaminated clothing before reuse. Provide eyewash fountains and safety showers in the work area. As a precaution to control dust explosion potential, implement the following safety measures: Eliminate ignition sources (e.g., sparks, static buildup, excessive heat, etc.). In general, dust of organic materials is a static charge generator which may be ignited by electrostatic discharge, electrical arcs, sparks, welding torches, cigarettes, open flame, or other significant heat sources. Use spark-proof tools and equipment. Bond, ground and properly vent conveyors, dust control devices and other transfer equipment. Prohibit flow of polymer, powder or dust through non-conductive ducts, vacuum hoses or pipes, etc.; only use grounded, electrically conductive transfer lines when pneumatically conveying product. Good housekeeping and controlling of dusts are necessary for safe handling of product. Prevent accumulation of dust (e.g., well-ventilated conditions, promptly vacuuming spills, cleaning overhead horizontal surfaces, etc.). A properly engineered explosion suppression system must be considered. See standards such as the National Fire Protection Association NFPA 654, "Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids"; NFPA 69, "Standard on Explosion Prevention Systems"; NFPA 68, "Standard on Explosion Protection by Deflagration Venting"; NFPA 77, "Recommended Practice on Static Electricity" and other standards as the need exists.

**Conditions for safe storage, including any incompatibilities:** Store cool and dry, under well-ventilated conditions. Store this material away from incompatible substances (see section 10). Do not store in open, unlabeled or mislabeled containers. Keep container closed when not in use. Do not reuse empty container without commercial cleaning or reconditioning. Product will absorb water vapor (hygroscopic).

## Section 8. Exposure Controls / Personal Protection

### Control parameters

#### Occupational exposure limits (OEL)

**ACGIH - TWA:** N/E

**ACGIH - STEL:** N/E

**OSHA - PEL:** N/E

**OSHA - STEL:** N/E

**OSHA - Ceiling:** N/E

**Mexico:** N/E



### Exposure controls

**Appropriate engineering controls:** Always provide effective general and, when necessary, local exhaust ventilation to draw dust away from workers to prevent routine inhalation. Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the SDS. Eliminate ignition sources (e.g., sparks, static buildup, excessive heat, etc.). Prohibit flow of powder or dust through non-conductive ducts, vacuum hoses, or pipes, etc. Bond, ground, and properly vent conveyors, dust control devices and other transfer equipment. (Ventilation guidelines/techniques may be found in publications such as Industrial Ventilation: American Conference of Governmental Industrial Hygienists, 1330 Kemper Meadow Drive, Cincinnati, OH, 45240-1634, USA.) (<http://www.acgih.org/home.htm>).

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

**Eye/face protection:** Safety glasses or goggles required.

**Skin and body protection:** Wear protective gloves. Use good laboratory/workplace procedures including personal protective clothing: lab coat, safety glasses and protective gloves.

**Respiratory protection:** In case of insufficient ventilation, wear suitable respiratory equipment. If inhalation of dust cannot be avoided, wear an approved particulate respirator. Use respirator in accordance with manufacturer's use limitations and OSHA standard 1910.134 (29CFR).

**Further information:** Eyewash fountains and safety showers are recommended in the work area.

### Section 9. Physical and Chemical Properties

**Form:** Granules/ powder

**Appearance:** White

**Odor:** Odorless

**Odor threshold:** Not Available

**Solubility in water:** Appreciable

**Evaporation rate:** Not Available

**Vapor pressure:** Negligible at 20 °C

**Vapor density:** Not Available

**Viscosity:** Not Available

**Melting point/Freezing point:** > 300°C (> 572°F)

**Oxidizing properties:** Not oxidizing

**Explosive properties:** Not explosive

**Decomposition temperature:** Not Available

**Other information:** Amounts specified are typical and do not represent a specification.

**pH:** Not Available

**Relative density:** 1.5

**Partition coefficient (n-octanol/water):** 1.88 (Benzoic acid)

**% Volatile by weight:** Not Available

**VOC:** Not Available

**Boiling point °C:** Not Available

**Boiling point °F:** Not Available

**Flash point:** Not Applicable



**Auto-ignition temperature:** > 510°C (> 950°F)

**Flammability (solid, gas):** Not flammable (may form combustible dust-air mixtures)

**Flammability or explosive limits**

**LFL/LEL:** Not Available

**UFL/UEL:** Not Available

**Dust combustibility data:** Particle size variation is considered a critical factor in regards to dust explosion hazard information. Results applicable as follows: sample particle size < 75 um, 0.1% moisture content. Sample tested is not typical of product.:

- Minimum ignition energy (dust cloud): 50-100 mJ
- Minimum explosive concentration: 50-60 g/m<sup>3</sup>
- Maximum rate of pressure rise: 581 bars/sec at 750 g/m<sup>3</sup>
- Maximum pressure of explosion: 7.2 bars-gauge at 500 g/m<sup>3</sup>
- Deflagration Index, K<sub>st</sub> (estimate): 158 bar-m/sec
- Volume resistivity (ambient relative humidity): 2.5 x 10<sup>(10)</sup> ohm-m
- Volume resistivity (low relative humidity): 6.3 x 10<sup>(12)</sup> ohm-m
- Charge decay (ambient relative humidity): 1 second
- Charge decay (low relative humidity): 752 seconds

#### Section 10. Stability and Reactivity

**Reactivity:** None known.

**Chemical stability:** This product is stable.

**Possibility of hazardous reactions:** Hazardous polymerization will not occur.

**Conditions to avoid:** Excessive heat and ignition sources. Contact with water or moist air. Avoid static discharge. Avoid dust formation.

**Incompatible materials:** Avoid strong acids and oxidizing agents. Avoid contact with iron salts.

**Hazardous decomposition products:** Carbon dioxide and carbon monoxide.

#### Section 11. Toxicological Information

##### Information on likely routes of exposure

**General:** Caution must be exercised through the prudent use of protective equipment and handling procedures to minimize exposure.

**Eyes:** Causes serious eye irritation.

**Skin:** Repeated or prolonged skin contact may cause irritation. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

**Inhalation:** Dust inhalation may cause respiratory irritation.

**Ingestion:** Ingestion may cause irritation.

**Symptoms/effects, acute and delayed:** Coughing, Irritation

**Acute toxicity information:** Not classified (based on available data, the classification criteria are not met).

**Inhalation LC50:** > 12.2 mg/l (no mortality, based on benzoic acid)

**Species:** Rat/ adult



**Oral LD50:** > 10000 mg/kg

**Species:** Rat/ adult

**Dermal LD50:** > 2000 mg/kg (based on benzoic acid)

**Species:** Rabbit/ adult

**Skin corrosion/irritation:** Not classified (based on available data, the classification criteria are not met). POTASSIUM BENZOATE: The following is data for sodium benzoate. Skin irritation: Slight to non-irritating.

**Serious eye damage/irritation:** Causes serious eye irritation (Category 2A). POTASSIUM BENZOATE: The following is data for sodium benzoate. Eye irritation: Moderate irritation.

**Respiratory or skin sensitization:** Not classified (based on available data, the classification criteria are not met).

(BENZOIC ACID): Not a skin sensitizer in the mouse local lymph node assay or Buehler guinea pig test.

**Carcinogenicity:** Not classified (based on available data, the classification criteria are not met). (SODIUM BENZOATE): In a 2-year animal feeding study (2% in food), sodium benzoate was not carcinogenic.

**Carcinogenic status:** Not listed or regulated by IARC, NTP, OSHA, or ACGIH.

**Germ cell mutagenicity:** Not classified (based on available data, the classification criteria are not met). BENZOIC ACID AND BENZOATE SALTS: Studies of benzoic acid and sodium benzoate in the Ames point mutation assay do not show evidence of mutagenicity. However, some studies have been reported to be positive in the less commonly used Bacillus subtilus recombination assay. In a number of cases adverse effects on the chromosome could be noticed, however also negative and/or equivocal results were reported. However many higher-level in vivo tests (clastogenicity inclusive) were negative. Sodium benzoate exhibited no genotoxicity in several in-vivo assays.

**Reproductive toxicity:** Not classified (based on available data, the classification criteria are not met). BENZOIC ACID AND BENZOATE SALTS: Reproductive toxicity (benzoic acid), 4-generation oral study in rats: NOAEL (no-observed adverse-effect level) 500 mg/kg bw/day. Developmental toxicity (sodium benzoate), oral, rats and mice: NOAEL of  $\geq 175$  mg/kg bw/day can be established for developmental effects.

**Specific target organ toxicity (STOT) - single exposure:** Not classified (based on available data, the classification criteria are not met).

**Specific target organ toxicity (STOT) - repeated exposure:** Not classified (based on available data, the classification criteria are not met). POTASSIUM BENZOATE: READ-ACROSS (SODIUM BENZOATE): Repeated dose oral toxicity studies for salts of benzoic acids: NOAEL (no-observed-adverse-effect-level) 1000 mg/kg bw/day. READ-ACROSS (BENZOIC ACID): Repeated dose toxicity study, inhalation: NOAEC (No-Observed-Adverse-Effect-Concentration), inhalation, rat: 250 mg/m<sup>3</sup> (systemic effects); 25 mg/m<sup>3</sup> (local). Local effects including nasal redness, pulmonary fibrosis and inflammatory cell infiltrates in the lungs were observed at lowest dose of 25 mg/m<sup>3</sup> and can be attributed to the irritant properties and to the physico-chemical properties of fine low-solubility particles of benzoic acid. NOAEL (No-Observed-Adverse-Effect-Level), dermal, rabbit - 2500 mg/kg bw/day. BENZOIC ACID AND BENZOATE SALTS: At higher doses (oral) increased mortality, reduced weight gain, convulsions (central nervous system effects), liver and kidney effects were observed.

**Aspiration hazard:** Not classified (technical impossibility to obtain the data).



**Other toxicity information:** No additional information available.

Section 12. Ecological Information

**Ecotoxicity**

**Fish 96 hour LC50:** > 100 mg/L (Sodium benzoate)

**Fish Chronic NOEC:** 10 mg/L (Sodium benzoate)

**Invertebrates 48 hour EC50:** Potassium benzoate >100 mg/L (Sodium benzoate)

**Algae 96 hour EC50:** > 30.5mg/L (Sodium benzoate)

**Algae Chronic NOEC:** EC10=6.5 mg/L (72 hours) (Sodium benzoate)

**Persistence and degradability**

**Biodegradation:** Readily biodegradable

**Bioaccumulative potential**

**(BCF) Log Kow:** 1.88 (Benzoic acid)

**Mobility in soil**

**Mobility in soil (Koc/Kow):** 14.5 (calculated)

**Other adverse effects:** No additional information available.

Section 13. Disposal Considerations

**Waste Treatment Methods:** Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

Section 14. Transport Information

The information below is provided to assist in documentation. It may supplement the information on the package. The package in your possession may carry a different version of the label depending on the date of manufacture. Depending on inner packaging quantities and packaging instructions, it may be subject to specific regulatory exceptions.

**UN number:** N/A

**UN proper shipping name:** Not regulated - See Bill of Lading for Details

**Transport hazard class(es)**

**U.S. DOT hazard class:** N/A

**Canada TDG hazard class:** N/A

**Europe ADR/RID hazard class:** N/A

**IMDG Code (ocean) hazard class:** N/A

**ICAO/IATA (air) hazard class:** N/A

A "N/A" listing for the hazard class indicates the product is not regulated for transport by that regulation.





**Packing group:** N/A

**Environmental hazards:**

**Marine pollutant:** Not Applicable

**Hazardous substance (USA):** Not Applicable

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:** Not Applicable

**Special precautions for user:** Not Applicable

Section 15. Regulatory Information

**Safety, health and environment regulations/legislation specific for the product**

**U.S. federal and state regulations/legislation:** This SDS has been prepared in accordance with the hazard criteria of the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**U.S. Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Reportable Quantity (RQ):** Not Applicable

**U.S. Superfund Amendments and Reauthorization Act (SARA) - SARA Section 313:** None Known

**California Proposition 65**

Warning: The following ingredients present in the product are known to the state of California to cause Cancer: None known to be present or none in reportable amounts for occupational exposure as per OSHA's approval of the California Hazard Communication Standard, Federal Register, page 31159 ff, 6 June 1997.

Warning: The following ingredients present in the product are known to the state of California to cause birth defects, or other reproductive hazards: None known to be present or none in reportable amounts for occupational exposure as per OSHA's approval of the California Hazard Communication Standard, Federal Register, page 31159 ff, 6 June 1997.

**Canada regulations/legislation:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

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

**Canadian Ingredient Disclosure List:** None known to be present or none in reportable amounts

**Mexico regulations/legislation:** This SDS contains the information required by NOM-018-STPS-2000 Workplace Hazardous Chemical Substances Communication and Identification Standard.

**Chemical inventories**

**Regulation Status**

Canadian Domestic Substances List (DSL): Y

Canadian Non-Domestic Substances List (NDSL): N

U.S. Toxic Substances Control Act (TSCA): Y



**HMIS (Hazardous Materials Identification System) Ratings**

**Health:** 2

**Flammability:** 1

**Reactivity (Stability):** 0

**Personal Protection:** X

**NFPA (National Fire Protection Association) Ratings**

**Health:** 2

**Flammability:** 1

**Instability:** 0

Section 16. Other Information

**Disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

REVISION DATE: 8/20/2015

