

**AERCHEM INC.**  
**320 North Walnut**  
**Bloomington, IN 47404**

Tel: 812.334.9996      Fax: 812.334.1960      Emergency: 800.424.9300

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**SECTION 1: IDENTIFICATION**

**Effective Date:** 7/98  
**Product Name:** SODIUM BENZOATE  
**Other Designations:** Benzoic Acid, Sodium Salt; Antimomol; Benzoate of Soda; Sobenate  
**Molecular Formula:** C<sub>7</sub>H<sub>6</sub>O<sub>2</sub>.Na  
**CAS No.:** 532-32-1

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**SECTION 2: HAZARDOUS INGREDIENTS:**

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**SECTION 3: PHYSICAL DATA**

**Odor:** Odorless  
**Appearance:** Colorless to white granules  
**Melting point.:** >300°C  
**Boiling point:** N/A  
**Decomposition temperature:** N/A  
**pH (depends on quality):** 8.0 approximately  
**Solubility in water:** 1gm dissolves in 1.8 ml of water  
**Specific gravity: (water = 1)** 1.44  
**Vapor density:** N/A  
**Vapor pressure:** N/A

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**SECTION 4: FIRE AND EXPLOSION DATA**

**Flash point:** N/A  
**Flash point Method:** N/A  
**Burning Rate:** N/A  
**Auto Ignition Temp:** 800°C  
**LEL:** 7.5 g / ft<sup>3</sup>  
**UEL:** 14.7 g / ft<sup>3</sup>  
**Flammability Classification:** Combustible dust  
**Extinguishing media:** Use extinguishing agents Appropriate for surrounding fire.  
**Unusual fire and explosions hazards:** Dust and mixtures may ignite or explode.  
**Hazardous Combustion Products:** May emit toxic fumes including Na<sub>2</sub>O.  
**Fire-Fighting Instructions:** Keep un-involved containers cool or remove from area if it can be done safely. Avoid breathing vapors, stay upwind.  
**Fire-Fighting Equipment:** Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus with a full face piece operated in pressure-demand or positive-pressure mode.

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**SECTION 5: REACTIVITY DATA**

Stable   X   Unstable \_\_\_\_\_  
**Decomposition byproducts:** Toxic fumes include oxides of Sodium.  
**Incompatibilities/Condition to Avoid:** Metal salts, oxidizing materials, acids, heat, flames spark.  
**Hazardous Polymerization:** Will not occur.

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**SECTION 6: HEALTH HAZARD DATA**

**Exposure:** **Eye Contact:** may cause slight irritation. **Skin Contact:** May cause irritation and urticaria, may cause itching, redness, swelling, and a burning sensation. Prolonged exposure may cause irritation and drying of the skin. **Inhalation:** Dust may cause irritation of the nose and throat with coughing and chest discomfort. **Ingestion:** Doses of 8-10 grams may cause nausea, and vomiting. Headache, dizziness and gastrointestinal irritation may occur. 12 g/day over 5 days caused mouth, throat and stomach pain with loss of appetite. All experimental animals eating a diet of 5% sodium benzoate died between the first and second week after a period of hyperexcitability urinary incontinence and convulsive seizures. Alterations in metabolism of lipids and electrolytes have been reported. Reproductive effects have been reported in animals. Sensitization reactions may also occur.

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**Carcinogenicity:** not listed

**Mutagenicity:** Sister chromatid exchange- human lymphocyte 10 mmol/L  
Cytogenetic analysis- hamster lung 1 gm/L  
Cytogenetic analysis- hamster fibroblast 2 gm/L 48 hrs.

**Teratogenicity:** An experimental teratogen.

**Reproductive:** 44 gm/kg oral- rat TDLo 1-22 days pregnant female continuous.  
3 gm/kg intraperitoneal- rat TDLo 1-22 days pregnant female continuous.  
3 gm/kg intraperitoneal- rat TDLo 12-14 days pregnant female continuous.  
300 mg/kg intraperitoneal- rat TDLo 12-14 days pregnant female continuous.

**Toxicity:**

|  |  |
|--|--|
| <b>rat LD50-</b> 4070 mg/kg oral                     | <b>rat LD50-</b> 2 mg/kg subcutaneous              |
| <b>rat LD50-</b> 1714 mg/kg intravenous              | <b>mouse LD50-</b> 1600 mg/kg oral                 |
| <b>mouse LD50-</b> 1440 mg/kg intravenous            | <b>mouse LD50-</b> 2306 mg/kg intramuscular        |
| <b>dog LD50-</b> 2 gm/kg oral                        | <b>rabbit LD50-</b> 2 gm/kg oral                   |
| <b>rabbit LD50-</b> 2 gm/kg subcutaneous             | <b>guinea pig LDLo-</b> 1400 mg/kg intraperitoneal |
| <b>guinea pig LDLo-</b> 1 gm/kg subcutaneous         | <b>frog LDLo-</b> 100 mg/kg subcutaneous           |
| <b>rat TDLo-</b> 27370 mg/kg 10 day continuous oral. |  |
| <b>rat TDLo-</b> 84 gm/kg 28 days continuous oral.   |  |
| <b>rat TDLo-</b> 137 gm/kg 13 weeks continuous oral. |  |
| <b>Mouse TDLo-</b> 45 gm/kg 10 days continuous oral. |  |

**Route of Entry:** Ingestion, inhalation, and absorption

**Permissible Exposure limits:**

**TWA:** 15mg/M<sup>3</sup> total dust; 5mg/M<sup>3</sup> resp. dust  
**TLV:** 10mg/M<sup>3</sup> inhalable; 3mg/M<sup>3</sup> resp. dust

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**SECTION 7: SPILLAGE AND DISPOSAL PROCEDURES**

**Spillage:** **Small Spills:** Scoop into container for disposal. Suction up remaining material with high-efficiency vacuum cleaner.

**Large Spills:** Scoop into container for disposal. Suction up remaining material with high-efficiency vacuum cleaner.

**Containment:** For large spills, avoid suspending particles, collect for later disposal. Do not release into sewers or

**Disposal:** Dispose in accordance with all applicable regulations.

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**SECTION 8: FIRST AID PROCEDURES**

**Eye Contact:** Immediately flush eyes with large amounts of water. Continue to flush for at least 30 min., occasionally lifting the upper and lower lids. Seek promptly medical attention.

**Skin Contact:** Immediately flush area with large amounts of water. Seek medical attention if necessary.

**Inhalation:** Remove the person to fresh air. Decontaminate before administering aid. Begin rescue breathing if breathing has stopped and CPR if heart action has stopped. Seek prompt medical attention.

**Ingestion:** If vomiting occurs, keep head lower than hips to help prevent aspiration. Seek prompt medical attention.

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**SECTION 9: HANDLING AND STORAGE INFORMATION:**

**Handling Precautions:** Keep containers closed at all times. Avoid creating dust. Keep away from ignition sources.

**Storage Requirements:** Keep separated from incompatible substances. Store in a tightly closed container.

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|                                 |                             |
|---------------------------------|-----------------------------|
|                                 | Store in a cool, dry place. |
| <b>Regulatory Requirements:</b> | none                        |

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**SECTION 10: SPECIAL PROTECTION INFORMATION:**

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|---------------------------------|---|
| <b>Ventilation:</b>             | Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contamination dispersion into work area by controlling it at its source.  |
| <b>Administrative Controls:</b> | Seek professional advice prior to respiration selection and use. Follow OSHA respirator regulations and if necessary, wear a MSHA/NIOSH- approved respirator. Select respirator based on its suitability to provide adequate worker protection for<br>give<br>working conditions, level of airborne contamination, and presence of sufficient oxygen. |
| <b>Protective Clothing:</b>     | Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye and face protection regulations.   |
| <b>Safety Stations:</b>         | Make emergency eyewash stations and washing facilities available in work area.  |
| <b>Comments:</b>                | Never eat, drink or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking smoking, using the toilet, or applying cosmetics.   |

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**SECTION 11: ECOLOGICAL INFORMATION**

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|-------------------------------|---|
| <b>Ecotoxicity:</b>           | Harmful to aquatic life.  |
| <b>Fish toxicity:</b>         | 484000 ug/L 96 hours LC50 (Mortality) Fathead Minnow ( <i>Pimephales promelas</i> ) |
| <b>Invertebrate Toxicity:</b> | 100000ug/L 90 weeks LC50 Oligochaete ( <i>Lumbriculus variegatus</i> )              |

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**SECTION 12: TRANSPORT INFORMATION**

**DOT Classification:** Not specifically listed

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**SECTION 13: OTHER REGULATORY INFORMATION**

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|---------------------------------------|-----|
| <b>Federal and State regulations:</b> | N/A |
| <b>WHMIS (Canada):</b>                | N/A |
| <b>DSCL (EEC):</b>                    | N/A |
| <b>HMIS (USA):</b>                    | N/A |