

Humco Holding Group, Inc.  
7400 Alumax Drive  
Texarkana, TX 75501  
800-662-3435

Item # 0395-2709

**Sodium Perborate**

**DATE PREPARED:** 02/10/00

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**SECTION I**

**PRODUCT IDENTIFICATION**

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**Product Name:** Sodium Perborate Tetrahydrate

**Synonyms:** Sodium Perborate, Tetrahydrate Perborax, Hydrate of Peroxometaborate

**General Use:** Used in oxygen-type laundry bleaches, plastic destaining and dishwashing compounds, coffee-stain removers, denture cleaners, neutralizers for cold-wave preparations, and the preparation of oxidizing solutions for bleaching or other purposes. It can also be used as a source of oxygen at elevated temperatures.

**HAZARD RATING SYSTEMS**

KEY 4 = Severe	
3 = Serious	Health 3
2 = Moderate	Flammability 0
1 = Slight	Reactivity 1
0 = None	Protection F

**Protection = f(o)** (Face shield and eye protection, gloves, apron, and dust aspirator)

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**Emergency Telephone Numbers:**

Humco Holding Group, Inc.	800-662-3435
Chemtrec	800-424-9300

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**SECTION II**

**COMPOSITION/INFORMATION ON INGREDIENTS**

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<u>Chemical Name</u>	<u>CAS No.</u>	<u>Wt %</u>
Sodium Perborate Tetrahydrate	10486-00-7	96-98

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**SECTION III**

**HAZARDOUS INGREDIENTS & EXPOSURE LIMITS**

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**Emergency Overview**

**Immediate Concerns:** Oxidizer. Contact with combustibles may cause fire. Under fire conditions product may decompose releasing oxygen that intensifies fire. Deluge container with water at safe distance or in protected area.

**Potential Health Effects:** Airborne dust may be irritating to eyes, nose, throat and lungs. No significant long term inhalation hazard; irritation usually subsides after exposure ceases.

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### SECTION IV

### FIRST AID MEASURES

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**Inhalation:** Remove to fresh air. If breathing difficulty or discomfort occurs and persists, contact a medical doctor.

**Skin Contact:** Wash with plenty of soap and water. Get medical attention if irritation occurs and persists.

**Eye Contact:** Immediately flush with water for at least 15 minutes, lifting the upper and lower eyelids intermittently. See a medical doctor or ophthalmologist immediately.

**Note to Physician:** May be corrosive to eyes and mucous membranes. Emesis or gastric lavage must consider possible esophageal perforation due to re-exposure to corrosives. Decomposition products may include peroxide (irritant) and borate. Systemic effects are unlikely, but would be those of boric acid which treatment is symptomatic and includes decontamination, support of circulation, correction of fluid-electrolyte disturbances, control of convulsions and protection of kidneys if large borate loads are encountered.

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### SECTION V

### FIRE FIGHTING MEASURES

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**Flash Point:** Non-combustible.

**Autoignition Temperature:** Non-combustible.

**Flammable Limits:** Non-combustible.

**Sensitivity to Static Discharge:** Not available.

**Sensitivity to Impact:** Not available.

**Extinguishing Media:** Water, water fog.

**Explosion Hazards:** Decomposes with liberation of heat and oxygen which may intensify fire in combustible surroundings.

**Firefighting Procedures:** For fires involving this material, do not enter any enclosed or confined fire space without proper protection equipment such as a self contained breathing apparatus.

**Hazardous Decomposition Products:** Oxygen which supports combustion.

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### SECTION VI

### ACCIDENTAL RELEASE MEASURES

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**Release Notes:** Materials should be put into an approved DOT container then diluted with large quantities of water and disposed of according to the methods outlined in Section 13. "Disposal Considerations". Return product to original container.

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### SECTION VII

### HANDLING & STORAGE

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**Handling:** Avoid contact by using personal protective equipment. Use respiratory protective equipment when release of airborne dust is expected.

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**Storage:** Store material in a cool, dry, clean area. Do not store near or expose to heat sources, i.e., steam pipes, radiant heaters, hot air vents, etc. Avoid contact with reducing agents and moisture.

**Ventilation:** Provide mechanical general and/or local exhaust ventilation to prevent release of dust into work environment. If ventilation is inadequate or not available, use dust respirator and eye protection.

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### SECTION VIII EXPOSURE CONTROLS/PERSONAL PROTECTION

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**Engineering Controls:** Provide mechanical local exhaust ventilation to prevent release of dust into the work area. If release is expected, use respiratory protection.

**Eyes & Face:** Chemical goggles or face shield.

**Respiratory:** Use approved dust respirator with full-face piece.

**Protective Clothing:** Rubber or neoprene gloves. Long sleeve shirt, impervious apron or clothing. Rubber or neoprene footwear.

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### SECTION IX PHYSICAL AND CHEMICAL PROPERTIES

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**Odor:** Odorless

**Appearance:** White crystalline solid

**Solubility:** 30 g/kg @ 25°C

**Specific Gravity:** NA

**pH (1% solution) @ 25°C:** 10.22.2007

**% Volatiles:** None

**Boiling Point:** NA

**Density:** NA

**Melting Point:** Decomposition temperature (approx) 65°C (149°F)

**Vapor Density (Air = 1):** NA

**Evaporation Rate:** NA

**Vapor Pressure @ 20°C:** 6.2 mm Hg

**Coeff. Oil/water:** NA

**Odor Threshold:** NA

**Oxidizing Properties:** Oxidizer

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### SECTION X STABILITY & REACTIVITY

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**Stability:** Stable (contamination and moisture could initiate decomposition)

**Conditions to avoid:** Heat, moisture, reducing agents.

**Hazardous Decomposition Products:** Hydrogen peroxide and oxygen that supports combustion.

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**Hazardous Polymerization:** Will not occur.

**Incompatibles:** Heavy metals, reducing agents, and combustibles such as wood, paper, oils, etc.

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### SECTION XI TOXICOLOGICAL INFORMATION

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**Eye Effects:** Extremely irritating/corrosive (rabbit) (FMC 182-665)

**Skin Effects:** No data available for the product.

**Dermal LD<sub>50</sub>:** >2000 mg/kg (rabbit) (FMC 182-664)

**Oral LD<sub>50</sub>:** 1908 mg/kg (rat) (FMC 182-663)

**Inhalation LC<sub>50</sub>:** No data available for the product.

**Target Organs:** Eyes, nose, throat and lungs.

**Acute Effects from Overexposure:** Product has low oral and dermal toxicity. It is minimally irritating to the skin and extremely irritating to the eyes. Dust may be irritating to nose, throat and lungs.

**Chronic Effects from Overexposure:** No data available for the product.

#### Carcinogenicity

**IARC:** Not listed.

**NTP:** Not listed.

**OSHA:** Not listed.

**ACGIH:** Not listed.

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### SECTION XII ECOLOGICAL INFORMATION

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**Ecotoxicological Information:** No data available for the product. Although boron is an essential micronutrient for healthy growth of plants, it can be harmful to boron sensitive plants in higher quantities. Care should be taken to minimize the amount of borate product releases to the environment. Boron naturally occurs in seawater at an average concentration of 5 mg/l. In lab studies acute toxicity (96 hr. LC<sub>50</sub>) for underyearling Coho salmon (*Oncorhynchus Kitsutch*) in seawater was determined as 40 mg b/l. Boron in freshwater is generally less than 1 mg b/l. Rainbow trout (*S. Gairdneri*) 24 day LC<sub>50</sub> = 150.0 mg b/l. 36 day NOEC-LOEC = 0.75 to 1 mg b/l.

**Chemical Fate Information:** Boron is naturally occurring and ubiquitous in the environment. Product will decompose in the environment to natural borate. Product is soluble in water and is leachable through normal soil.

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### SECTION XIII DISPOSAL CONSIDERATIONS

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**Disposal Method:** Dissolve in water to allow the release of oxygen and dispose via a treatment system in accordance with governmental agencies regulations. Contact appropriate regulatory agency prior to disposal.

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### SECTION XIV TRANSPORTATION INFORMATION

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#### U.S. D.O.T.

**Proper Shipping Name:** Sodium Perborate Tetrahydrate

**Hazard Class:** NA

**Labels:** Not required

**UN/NA:** None

**DOT Marking:** Not required

**Placards:** Not required

**Hazardous Substance/RQ:** Not listed

**49 STCC Number:** None

#### Special Shipping Notes

**IMDG:** Sodium Perborate Tetrahydrate

**IATA:** Sodium Perborate Tetrahydrate

Keep materials cool and dry. 11010 polyethylene tinid gag.

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### SECTION XV REGULATORY INFORMATION

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#### United States

**SARA Title III (Superfund Amendments and Reauthorization Act) Section 311 Hazard Category (40 CFR 370):** Fire Hazard, Immediate (Acute) Health Hazard.

**Section 312 Threshold Planning Quantity (40CFR 370):** 10000 lbs. (conc. <52%): Not listed.

**Section 313 Reportable Ingredients (40 CFR 372):** Not listed.

**SARA Title III Section 302 Extremely Hazardous Substances (40 CFR 355):** Not listed.

**CERCLA (Comprehensive Environmental Response Compensation and Liability Act) Regulatory (40 CFR 302.4):** Not listed.

**TSCA (Toxic Substance Control Act) Status (40 CFR 710): Exempt:** Hydrate of Sodium Peroxometaborate.

Revised 12/03/07