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For Emergency Assistance involving chemicals call - CHEMTREC (800) 424-9300
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 PRODUCT IDENTIFICATION

PRODUCT NAME: SODIUM PERBORATE TETRAHYDRATE

MSDS#: FM00008

DATE ISSUED: 01/29/2004

SUPERSEDES: 02/08/2001

ISSUED BY: 008418

MATERIAL SAFETY DATA SHEET

Sodium Perborate Tetrahydrate

MSDS Ref. No.: 10486-00-7

FMC Date Approved: 01/229/2004

Revision No.: 3

This document has been prepared to meet the requirements of the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200; the Canada's Workplace Hazardous Materials Information System (WHMIS) and, the EC Directive, 2001/58/EC.

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Sodium Perborate Tetrahydrate

SYNONYMS: Sodium Perborate, Tetrahydrate Perborax, Hydrate of Peroxometaborate

GENERAL USE: Used in active 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.

MANUFACTURER

FMC CORPORATION

Active Oxidants Division

1735 Market Street

Philadelphia, PA 19103

(215) 299-6000 (General Information)

EMERGENCY TELEPHONE NUMBERS

(800) 424-9300 (CHEMTREC - U.S.)

(303) 595-9048 (Medical - Call Collect)

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

White, odorless, crystals

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.

Corrosive to eyes.

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.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Wt.%	EC No.	EC Class
Sodium Perborate Tetrahydrate	10486-00-7	96 - 98	None	Not classified as hazardous

4. FIRST AID MEASURES

EYES:

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

SKIN:

Wash with plenty of soap and water. Get medical attention if irritation occurs and persists.

INGESTION:

Rinse mouth with water. Dilute by giving 1 or 2 glasses of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. See a medical doctor immediately.

INHALATION:

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

NOTES TO MEDICAL DOCTOR:

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 for 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.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:

Water, water fog

FIRE / EXPLOSION HAZARDS:

Decomposes with liberation of heat and oxygen which may intensify fire in combustible surroundings.

FIRE FIGHTING 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.

FLAMMABLE LIMITS:

Non-combustible

SENSITIVITY TO IMPACT:

Not available

SENSITIVITY TO STATIC DISCHARGE: Not available

6. ACCIDENTAL RELEASE MEASURES

RELEASE NOTES:

Material 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.

7. HANDLING AND STORAGE

HANDLING:

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

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.

COMMENTS:

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.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:

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

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Chemical goggles or face shield.

RESPIRATORY: Use approved dust respirator with full face piece.

PROTECTIVE CLOTHING: Long sleeve shirt, impervious apron or clothing. Rubber or neoprene footwear.

GLOVES:

Rubber or neoprene gloves. Thoroughly wash the outside of gloves with soap and water prior to removal. Inspect regularly for leaks.

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR:	Odorless
APPEARANCE:	White crystalline solid
AUTOIGNITION TEMPERATURE:	Non-combustible
BOILING POINT:	Not applicable
COEFFICIENT OF OIL / WATER:	Not available
DENSITY / WEIGHT PER VOLUME:	Not available
EVAPORATION RATE:	Not applicable (Butyl Acetate = 1)
FLASH POINT:	Non-combustible
MELTING POINT:	Approximately 65 C (149 F) Decomposition temperature
ODOR THRESHOLD	Not available
OXIDIZING PROPERTIES:	Oxidizer
PERCENT VOLATILE:	None
pH:	10.2 @ 25 C (1% solution)
SOLUBILITY IN WATER:	30 g/kg @ 25 C
SPECIFIC GRAVITY:	(H ₂ O = 1) Not available
VAPOR DENSITY:	Not applicable (Air = 1)

VAPOR PRESSURE: 6.2 mm Hg @ 20 C (68 F)

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID:

Heat, moisture, reducing agents.

STABILITY:

Stable (contamination and moisture could initiate decomposition.)

POLYMERIZATION:

Will not occur

INCOMPATIBLE MATERIALS:

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

HAZARDOUS DECOMPOSITION PRODUCTS:

Hydrogen peroxide, and oxygen that supports combustion.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: Extremely irritating/corrosive (rabbit) (FMC 182-6651)
SKIN EFFECTS: No data available for the product.
DERMAL LD50: > 2,000 mg/kg (rabbit) (FMC 182-664)
ORAL LD50: 1,908 mg/kg (rat) (FMC 182-663)
INHALATION LC50: 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:

NTP: Not listed
IARC: Not listed
OSHA: Not listed
OTHER: ACGIH: Not listed

12. ECOLOGICAL INFORMATION

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 released to the environment.

Boron naturally occurs in seawater at an average concentration of 5 mg b/l. In lab studies acute toxicity (96-hr. LC50) for underyearling Coho salmon (*Onchorhynchus 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 LC50 = 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.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD:

Dissolve in water to allow the release of oxygen and dispose via a treatment system in accordance with local, state and federal governmental agencies regulations. Contact appropriate regulatory agency prior to disposal.

14. TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (DOT)

PROPER SHIPPING NAME: Not regulated by U.S. DOT
PRIMARY HAZARD CLASS / DIVISION: Not applicable
UN/NA NUMBER: N/A
PACKING GROUP: N/A
LABEL(S): Not applicable
PLACARD(S): Not applicable
MARKING(S): Not applicable
REPORTABLE QUANTITY (RQ): Not Listed
ADDITIONAL INFORMATION: 49 STCC Number: Not applicable
INTERNATIONAL MARITIME DANGEROUS GOODS (IMDG)
ADDITIONAL INFORMATION: Not regulated
INTERNATIONAL CIVIL AVIATION ORGANIZATION (ICAO) /
INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA)
ADDITIONAL INFORMATION: Not regulated

OTHER INFORMATION:

Keep material cool and dry.
This material is shipped in 110 lb. polyethylene lined bags.
N/A = not applicable

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)
SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355, APPENDIX A):
Not listed

SECTION 311 HAZARD CATEGORIES (40 CFR 370):
Fire Hazard, Immediate (Acute) Health Hazard

SECTION 312 THRESHOLD PLANNING QUANTITY (40 CFR 370):
The Threshold Planning Quantity (TPQ) for this product, if treated as a mixture, is 10,000 lbs; however, this product contains the following ingredients with a TPQ of less than 10,000 lbs.: None, (conc. <52%)

SECTION 313 REPORTABLE INGREDIENTS (40 CFR 372):
Not listed

CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT)

CERCLA DESIGNATION & REPORTABLE QUANTITIES (RQ) (40 CFR 302.4):
Not listed

TSCA (TOXIC SUBSTANCE CONTROL ACT)
TSCA INVENTORY STATUS (40 CFR 710):
Exempt: Hydrate of sodium peroxometaborate

INTERNATIONAL LISTINGS

Sodium perborate tetrahydrate:
Australia (AICS): Listed
China: Listed

Philippines (PICCS): Listed

16. OTHER INFORMATION

HMIS

Health	3
Flammability	0
Physical Hazard	1
Personal Protection (PPE)	F

Protection = F(o) (Face shield and eye protection, gloves, apron, and dust respirator)

HMIS = Hazardous Materials Identification System

Degree of Hazard Code:

4 = Severe
3 = Serious
2 = Moderate
1 = Slight
0 = Minimal

NFPA

Health	3
Flammability	0
Reactivity	1
Special	OX

SPECIAL = OX (Oxidizer)

NFPA = National Fire Protection Association

Degree of Hazard Code:

4 = Extreme
3 = High
2 = Moderate
1 = Slight
0 = Insignificant

REVISION SUMMARY:

Changes in information are as follows:

New Format, as well as text changes and/or updates to one or more Sections of this MSDS.

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For Additional Information:

Contact: MSDS Coordinator - Univar USA

During business hours, Pacific Time - (425) 889-3400

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END OF MSDS