

Sodium Perborate Monohydrate

Description

Sodium perborate monohydrate is prepared by dehydrating sodium perborate tetrahydrate. The Monohydrated form is essentially showing three advantages in comparison with the tetrahydrated form: a higher content of available oxygen, a higher heat stability and a higher dissolution rate into water. It provides a high available oxygen content equivalent to 32% hydrogen peroxide - 50% more active oxygen than the same weight of sodium perborate tetrahydrate. Sodium perborate releases nascent oxygen at elevated temperatures, it is a stable, solid source of active oxygen. It's main disadvantage is that the bleaching action only takes place at elevated temperatures over 60°C. To release it's bleaching action at lower temperatures, an activator e.g. TAED, NOBS, DECOBS must be added. This product will decompose in the environment to natural borate. 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.

Technical Information

- ☞ Chemical Name: Perboric acid, sodium salt, monohydrated
- ☞ Synonyms: Sodium peroxyborate, sodium peroxoborate, PB1, PBSM
- ☞ Molecular Formula: $\text{NaBO}_3 \cdot \text{H}_2\text{O}$
- ☞ Molecular Weight: 99.81
- ☞ CAS Number: 10332-33-9

Product Properties	Standard Specifications
Active Oxygen, %	Min. 15.1
Bulk Density, g/L	550~640
Wet Stability, %	Min. 85
Iron, ppm	Max. 10
pH Value	9.5-10.5
Particle Size Distribution, %	On 0.85 mm Max. 2 On 0.425 mm 15~80 Thru. 0.150 mm Max. 5
Appearance	White granular solid, free-flowing
Packing	25/750 kg PP-PE bag

Applications

Sodium Perborate monohydrate is similar to sodium percarbonate as a famous oxygen bleach agent. It offers many of the functional benefits as liquid hydrogen peroxide in a stable solid form. Its oxidative power improves the cleaning, bleaching, stain removal and deodorizing performance of powder detergent formulations, all fabric dry bleaches, denture cleaners, automatic dishwasher detergents and various institutional and industrial laundry products.

Handling and Storage

Storage

- Oxidizer. Store in a cool, well ventilated area away from all source of ignition and out of direct sunlight. Store in a dry location away from heat. Store at temperatures less than 40°C.
- Keep away from incompatible materials. Keep containers tightly closed. Do not store in unlabeled or mislabeled containers.
- Protect from moisture. Do not store near combustible materials. Keep containers well sealed, seal only with original vent cap. Ensure pressure relief and adequate ventilation.
- Store separately from organics and reducing materials. Avoid contamination which may lead to decomposition.

Handling

- Avoid contact with eyes, skin, and clothing. Use with adequate ventilation.
- Do not swallow. Avoid breathing vapors, mists, or dust. Do not eat, drink, or smoke in work area.
- Prevent contact with combustible or organic materials.
- Label containers and keep them tightly closed when not in use.
- Wash thoroughly after handling.

First-aid Measures

- Inhalation-Remove affected person to fresh air. Seek medical attention if effects persist.
- Eye contact-Flush eyes with running water for at least 15 minutes with eyelids held open. Seek specialist advice.
- Skin contact-Wash affected skin with soap and mild detergent and large amounts of water.
- Ingestion-If the person is conscious and not convulsing, give 2-4 cupfuls of water to dilute the chemical and seek medical attention immediately. Do not inducing vomiting.

Shipping Information

- Proper Shipping Name: Sodium Perborate Monohydrate
- UN Number: UN3377
- Hazard Class: 5.1
- Labels: 5.1 (Oxidizer)
- Packing Group: III
- EMS: F-A, S-Q

Please read the MSDS for this chemical before using