



Sodium Metasilicate Pentahydrate

CAS No.: 10213-79-3
Formula: $\text{Na}_2\text{SiO}_3 \cdot 5\text{H}_2\text{O}$

DESCRIPTION

Sodium Metasilicate Pentahydrate is a strongly alkaline inorganic compound supplied in granular (beaded) form. It provides both alkalinity and silica, making it highly effective in cleaning, buffering, and corrosion inhibition applications. The product enhances removal of oils, greases, and particulate soils while protecting metal and non-metal surfaces.

KEY FEATURES

- Strong alkaline builder with excellent cleaning and degreasing power
- Provides effective emulsification and dispersion of oils, fats, and soils
- Acts as a corrosion inhibitor for metals in cleaning formulations
- Highly soluble in water with fast dissolution rate
- Functions as a pH buffer and water softener in detergent systems
- Used in industrial cleaners, detergents, ceramics, and water treatment applications

APPLICATIONS

- Oilfield applications as a shale stabilizer in water-based drilling fluids and as a set accelerator in cementing systems
- Drymix and construction materials to enhance workability, flow, and early strength
- Industrial cleaners and detergents as a builder and alkaline source
- Adhesives, boiler compounds, and fireproofing mixtures as a multifunctional alkali silicate additive

TYPICAL SPECIFICATIONS

Parameter	Specification
Appearance	White granular / beaded solid
Sodium Oxide (Na_2O , %)	28.7 – 30.0
Silicon Dioxide (SiO_2 , %)	27.8 – 29.2
Water Insoluble (%)	≤ 0.05
Iron (ppm)	≤ 100
Whiteness (%)	≥ 80
Bulk Density (g/cm^3)	0.80 – 0.97
pH (1% solution)	12 – 13
Melting Point ($^{\circ}\text{C}$)	~ 72
Particle Size (16–30 mesh, %)	≥ 90





**LIMITED WARRANTY INFORMATION.
PLEASE READ CAREFULLY.**

Chemport Pty Ltd provides the information contained in this document in good faith based on the best knowledge available at the time of publication. While we believe the information to be accurate and reliable, it is intended for general guidance only and is provided without warranty of any kind, express or implied.

Users are solely responsible for determining the suitability of this product for their specific application and for ensuring compliance with all relevant regulations, industry standards, and intellectual property rights. The product must not be used in violation of any law, statute, or third-party rights.

Chemport Pty Ltd shall not be liable for any direct, indirect, or consequential loss or damage arising from the use of this product or reliance on the information provided in this document. Users should refer to the current Safety Data Sheet (SDS) and perform their own evaluations, including any necessary testing, to confirm the product's suitability for use in their particular conditions.

This document is subject to revision without notice as new data becomes available.

TECHNICAL SUPPORT
+61294103317
info@chemport.com.au

Level 9 Tower A
821 Pacific Highway
Chatswood NSW 2067
Australia
chemport.com.au

PACKAGING

- 25 kg bags
- Bulk packaging
- Other sizes may be available upon request.

SHELF LIFE

Shelf life is at least 12 months under normal storage conditions.

STORAGE & HANDLING

Store in a cool, dry and well-ventilated area. Keep containers tightly sealed and protected from moisture, as the product is hygroscopic. Avoid exposure to humidity during storage and handling.

SAFETY

Sodium Metasilicate Pentahydrate is strongly alkaline and should be handled with care. Avoid contact with skin and eyes. Use appropriate personal protective equipment. Refer to the Safety Data Sheet (SDS) for detailed safety information.