



Safety Data sheet

Revision date: 2024.09.03

Hardcast Binder

1. IDENTIFICATION OF THE MATERIAL AND THE SUPPLIER

Product name: Hardcast Binder
 Product synonyms: Sodium silicate solution
 Product Description: Refractory binder / bonding agent
 Supplier Name: MT Refractories (Pty) Ltd
 Address: Unit C 61 Steyr Street, Aureus, Randfontein, 1759
 Telephone: +27 (0)67 325 5930
 Emergency: +27 (0)72 875 0191

2. HAZARDS IDENTIFICATION

Hazard Classification: This product is very alkaline and may cause irritation to eyes, moderate to severe skin irritation and is harmful when swallowed.
 Risk phrase (s): Alkaline

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS Number	Proportion (%)
Sodium Silicate	1344-09-8	-
Water	-	-

The exact percentage has been withheld as a trade secret

4. FIRST AID MEASURES

Eye Contact: Contact with eyes can cause severe irritation. If in contact with eyes, thoroughly flush eyes with running clean water for at least 20 minutes, lifting the upper and lower eyelids occasionally. If person is wearing contact lenses, removal should be undertaken by skilled persons. Seek medical attention.

Skin contact: Contact with skin can cause severe irritation. Remove contaminated clothing. Wash areas that were in contact with the product thoroughly. Seek medical attention. Launder clothes before re-using.

Inhalation: Contact can cause severe irritation of the respiratory tract. Move to fresh air. If necessary, give oxygen and if breathing stops use artificial respiration. Seek medical attention.

Ingestion: Ingestion can cause severe irritation of the gastrointestinal tract. Give large quantities of water. Do NOT induce vomiting. Do not give any liquids to an unconscious person. Seek medical attention.

Contact with eyes, skin and respiratory system may cause irritation. Redness of eyes and skin can be a consequence of contact with product.



Safety Data sheet

Revision date: 2024.09.03

5. FIRE FIGHTING MEASURES

Flammability:	Non flammable.
Fire and explosion:	None expected.
Suitable Extinguishing media:	Not considered a fire hazard. Use suitable extinguishing media for surrounding combustible materials.

6. ACCIDENTAL RELEASE MEASURES

Ensure adequate ventilation and evacuate to safe areas.	
Personal Precautions:	Strong alkaline irritant. Wear personal protective equipment (clothing, respiration protection, eye or face shield and suitable gloves) to avoid direct contact. Surfaces might be slippery.
Clean up measures:	Absorb the spillage with using a non-combustible material like sand, vermiculite or dry earth and transfer into containers for disposal. Clean up residual material and surface by using water.

7. HANDLING AND STORAGE

Safe Handling:	Avoid contact with skin and eyes. Handle in a well-ventilated work area. Wear personal protective equipment (clothing, glasses / face shield and chemically resistant gloves) to avoid direct contact.
Safe storage:	Keep container tightly closed in a well-ventilated area. Open containers must be carefully resealed and kept upright.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits:	Not determined.
Biological limit values	Not determined.
Engineering Control Measures	Use control measures to keep airborne concentration below limits
Respiratory Protection:	Not required under normal conditions of use but use when necessary.
Eye Protection:	Wear goggles or safety glasses with side shields where there is a risk of contact with liquid.
Hand Protection:	Wear chemical resistant gloves to avoid contact with skin.
Protective Clothing:	Protective clothing designed to limit direct exposure to product.
Hygiene Measures:	Wash clothing after contamination, dispose of gloves, wash hands before eating and drinking.
Thermal Protection:	When necessary, wear appropriate thermal protective clothing.



Safety Data sheet

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear to cloudy viscous liquid
Odor:	Odorless
pH:	~13
Vapor Pressure:	Not available
Vapor Density:	Not available
Boiling Point:	Not available
Melting Point:	Not available
Specific gravity / density	1.34 kg/L
Solubilities	Complete in water
Evaporation rate:	Not available
% Volatiles:	Not determined
Flammability:	Non Flammable
Flash Point:	Not available
Flammable Limits – Lower and Upper:	Not available

10. STABILITY AND REACTIVITY

Reactivity	Product is stable under normal conditions for shipping and storage and installation.
Chemical Stability:	Hardens when dried or exposed to heat.
Conditions to avoid:	Incompatibles
Incompatible Material:	Solution is a strong base – avoid materials incompatible with strong bases.
Hazardous Decomposition:	Not determined
Hazardous Polymerization:	None
Hazardous Reaction:	Under normal storage conditions, hazardous reactions will not occur.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary:	Avoid contact with eyes, skin and respiratory system.
Eye:	Contact with eyes may cause damage.
Skin:	Repeated or prolonged contact may cause irritation or burns.
Inhalation:	May irritate the respiratory tract.
Ingestion:	Ingestion can cause severe irritation of the gastrointestinal tract.
Carcinogenicity:	Not available
Chronic Effects:	Not available

12. ECOLOGICAL INFORMATION

Keep away from water and sewage system and do not allow product to reach ground water.
No information regarding the eco-toxicity or environmental fate of the product.

Safety Data sheet

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13. DISPOSAL CONSIDERATIONS

Keep away from water and sewage system and do not allow product to reach ground water.
Dispose material according to local regulations.
Empty containers might contain product residues and should be disposed of accordingly.
The proper disposal of product must be determined with waste analysis.

14. TRANSPORT INFORMATION

Domestic (Land, D.O.T)

Proper Shipping Name:	Hardcast Binder
Hazard Class:	9
UN Nr:	UN3266
Packing Group	III
Information Reported for Packing Size:	30 kg

15. REGULATORY INFORMATION

Not applicable

16. OTHER INFORMATION

The information provided in this document has been compiled from sources considered accurate and dependable to the best of our knowledge, but it is not guaranteed to be so. This information is for the use and evaluation of this product in respect to hazards (safety, health and environmental). It remains the responsibility of the user to determine the product suitability for a specific purpose and to adopt the necessary safety precautions. We make no warranty as to the results to be obtained in using any material. This information is no product warranty or base for legal relationship.
It is not allowed to derive liabilities and warranties from this safety data sheet against MT Refractories (Pty) Ltd.