

MSDS- VOGA HARDNER

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VOGEL SYSTEMS Safety data sheet

Date /Revised: 19.09.2022

Product: **MSDS- VOGA HARDNER**

Version: 1.0

Date of print 20.09.2022

1. Identification

Product identifier

VOGA HARDNER

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: Product for construction chemicals Recommended use: for industrial and professional users



Details of the supplier of the safety data sheet

E-mail address: info@vogel-systems.de

Emergency telephone number

International emergency number

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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING1. Product identifierProduct name **VOGA HARDNER**2. Relevant identified uses of the substance or mixture and uses advised againstIdentified uses : **Concrete Hardener and Dust Proofer**3. Details of the supplier of the safety data sheetSupplier

Company name : Vogel co.

E-mail address: info@vogel-systems.de**2. COMPOSITION/INFORMATION ON INGREDIENTS****GHS Classification**

Skin Irritation – Category 2

Eye Damage – Category 1

Signal Word: Danger**Pictogram:****Hazard Statements:**

H315 Causes skin irritation

H318 Causes serious eye damage

Precautionary Statements:

P264 Wash hands thoroughly after handling

P280 Wear protective gloves and eye protection

P302+P352 IF ON SKIN: Wash with plenty of water

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes; remove contact lenses if present and easy to do. Continue rinsing.

P310 Immediately call a poison center or doctor

3. COMPOSITION

Component	CAS No.	Concentration (% w/w)	Classification
Sodium silicate	8-09-1344	%35–20	Skin Irrit. 2 (H315), Eye Dam. 1 (H318)
Water	5-18-7732	%80–65	Not classified

Notes:

The product is an aqueous solution of sodium silicate, formulated for concrete surface treatment.

No other hazardous components are present above reportable thresholds.

The listed ingredients are either registered under REACH or exempt.

4. FIRST AID MEASURES**Inhalation:**

- Move to fresh air. If symptoms (coughing, discomfort) persist, seek medical attention.

Skin Contact:

- Rinse immediately with plenty of water. Remove contaminated clothing.
- Wash skin with soap and water. Seek medical advice if irritation persists.

Eye Contact:

- Rinse cautiously with water for 15 minutes. Remove contact lenses if present.
- Seek immediate medical attention — this product can cause serious eye damage.

Ingestion:

- Rinse mouth. Do not induce vomiting.
- Give small amounts of water if conscious. Seek medical advice.

Note to Physician:

- Treat symptomatically. Alkaline solution; may require eye irrigation and burn treatment.

5. FIRE FIGHTING MEASURES**Suitable Extinguishing Media**

Use extinguishing agents suitable for the surrounding fire:

Water spray or fog
Foam
Dry chemical powder
Carbon dioxide (CO₂)

Unsuitable Extinguishing Media

None known. Product is water-based and non-flammable.

Specific Hazards Arising from the Chemical

This product is non-combustible.

In fire conditions, containers may rupture due to internal pressure buildup from boiling water content.

Decomposition of packaging or additives may produce:

Carbon monoxide (CO)
Carbon dioxide (CO₂)
Irritating fumes or vapours

Protective Equipment and Precautions for Firefighters

Firefighters should wear full protective gear and self-contained breathing apparatus (SCBA).

Cool containers with water spray to prevent rupture from heat exposure.

Prevent fire-fighting runoff from entering drains or waterways.

Additional Notes

Product will not contribute to combustion but may react with acids to release heat.

Treat runoff as potentially contaminated and dispose of per local regulations.

6. ACCIDENTAL RELEASE MEASURES**Personal Precautions**

- Avoid contact with skin and eyes.
- Use personal protective equipment (see Section 8): chemical-resistant gloves, safety goggles, and protective clothing.
- Ensure adequate ventilation during cleanup to avoid inhalation of any mist or spray.

Environmental Precautions

- Prevent large spills from entering drains, sewers, or natural water bodies.
- Notify authorities if uncontrolled release causes environmental impact.

Methods and Materials for Containment and Cleaning Up**• Small Spills:**

Absorb with inert material (e.g. sand, earth, vermiculite).
Scoop or shovel into appropriate containers for disposal.

• Large Spills:

Dike the area to prevent spreading.
Collect liquid using a pump or vacuum system, then absorb remaining residue.

• Final Cleanup:

Rinse spill area thoroughly with water.
Collect rinse water and adjust pH (to 6–9) before disposal.

• Reference to Other Sections

For PPE: See Section 8

For disposal: See Section 13

7. HANDLING AND STORAGE**Handling**

- Avoid contact with skin, eyes, and clothing.
- Do not breathe mist or spray.
- Use only in well-ventilated areas or with appropriate local exhaust ventilation.
- Always wear suitable personal protective equipment (see Section 8).
- Wash hands and face thoroughly after handling and before eating, drinking, or smoking.
- Prevent splashing and spills during transfer or application.
- Do not mix with acids or reactive chemicals unless specifically intended.

Storage

- Store in tightly closed, clearly labeled containers.
- Keep in a dry, cool, well-ventilated area at **5–35 °C**.
- Protect from freezing and direct sunlight.
- Store away from strong acids, oxidizing agents, and incompatible materials.
- Do not store in containers made of aluminum or other soft reactive metals.
- Keep away from foodstuffs and animal feed.

Shelf Life:

- 12 months from date of manufacture when stored as recommended.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Substance	TWA (8h)	Source
Sodium silicate	None assigned	—
Particulate mist (nuisance)	10 mg/m ³ (inhalable)	ACGIH TLV

- **Engineering controls:** Local exhaust ventilation
- **Respiratory:** Organic-vapour/particulate respirator if limits exceeded
- **Eye:** Splash-resistant goggles
- **Skin:** Nitrile or neoprene gloves; full protective clothing
- **Hygiene:** Wash hands before breaks and after work

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Value
Appearance	Clear to slightly hazy liquid
Odour	Odourless
Odour threshold	Not applicable
pH	11.0 – 12.5 (alkaline)
Melting/freezing point	~0 °C (may be damaged by freezing)
Initial boiling point	>100 °C
Flash point	Not flammable
Evaporation rate	Similar to water
Flammability	Not applicable
Explosive limits	Not applicable
Vapour pressure	~23 mm Hg at 20 °C (water)
Vapour density	Not determined
Relative density	1.20 – 1.35 g/cm ³
Solubility in water	Fully miscible
Partition coefficient	Not applicable (inorganic solution)
Auto-ignition temperature	Not applicable
Decomposition temperature	Not determined
Viscosity	<100 mPa·s (low viscosity, water-like)
VOC content	0 g/L (compliant with VOC regulations)

10. STABILITY AND REACTIVITY

- **Reactivity**

Reacts with acids to form heat and insoluble silica gel.

Alkaline in nature; may degrade some materials on contact (e.g., aluminum, zinc).

- **Chemical Stability**

Stable under normal handling and storage conditions.

- **Possibility of Hazardous Reactions**

No hazardous polymerization expected under recommended use.

Reacts exothermically with strong acids.

- **Conditions to Avoid**

Freezing temperatures (may destabilize formulation).

Excessive heat or direct sunlight.

Contact with incompatible materials (see below).

- **Incompatible Materials**

Strong acids

Ammonium salts

Reactive metals (e.g., aluminum, zinc)

Magnesium, chlorine compounds, organic peroxides

- **Hazardous Decomposition Products**

Under fire conditions or with incompatible substances, may release:

Silica dust (if dried and abraded)

Carbon monoxide (CO), carbon dioxide (CO₂) from packaging

Irritating alkaline vapors or mist.

Note: Product is considered chemically stable when stored and handled as recommended. Avoid unintended mixing with incompatible substances.

11. TOXICOLOGICAL INFORMATION

- **Acute Toxicity**

Oral (rat): LD₅₀ > 5,000 mg/kg (low toxicity)

Dermal (rabbit): LD₅₀ > 5,000 mg/kg (low toxicity)

Inhalation: Not expected to be hazardous by inhalation under normal use. Misting may cause mild irritation.

- **Skin Corrosion/Irritation**

Category 2: Causes skin irritation due to alkaline pH; prolonged exposure may cause dryness, redness, or mild chemical burns.

- **Serious Eye Damage/Irritation**

Category 1: Causes serious eye damage; direct contact may lead to severe irritation or corneal injury.

- **Respiratory or Skin Sensitization**

Not classified: No sensitizing effects reported under normal use.

- **Germ Cell Mutagenicity**

Not classified: No evidence of mutagenic potential based on available data.

- **Carcinogenicity**

Not classified: No components classified as carcinogenic by IARC, NTP, or OSHA.

- **Reproductive Toxicity**

Not classified: No known effects on fertility or fetal development.

- **STOT – Single Exposure (SE)**

May cause irritation to mucous membranes and upper respiratory tract if aerosol or mist is inhaled.

- **STOT – Repeated Exposure (RE)**

Not classified: No known long-term organ effects at typical use concentrations.

- **Aspiration Hazard**

Not applicable: Product is a water-based solution and poses no aspiration risk.

Note: Always wear appropriate PPE to avoid unnecessary contact, especially with eyes and skin.

12. ECOLOGICAL INFORMATION**Ecotoxicity**

- **Aquatic life (Fish, Daphnia, Algae):**

Sodium silicate is not classified as acutely toxic to aquatic organisms at typical use concentrations.

LC₅₀ / EC₅₀ > 100 mg/L (estimated, freshwater species)

However, the high **alkalinity (pH 11–12.5)** of the product may cause **localized harm** to aquatic life if released in large quantities.

- **Persistence and Degradability**

Product contains **inorganic silicates**, which are not biodegradable.

Will remain stable and persistent in the environment.

- **Bioaccumulative Potential**

- **Low bioaccumulation potential**

Sodium silicate does not bioaccumulate (Log K_{ow} < 1).

- **Mobility in Soil**

Highly mobile when diluted or in solution.

Will bind to soil and eventually form insoluble silicate gels upon reacting with CO₂ or acids.

- **Other Adverse Effects**

Not classified as PBT (Persistent, Bioaccumulative, Toxic) or vPvB (very Persistent, very Bioaccumulative) under REACH.

Product is not ozone-depleting and does not contain fluorinated greenhouse gases.

- **Environmental Note:** Avoid uncontrolled release to surface water or soil. Neutralize large spills and prevent discharge into drainage systems without treatment.

13. DISPOSAL CONSIDERATIONS

- **Waste Treatment Methods**

- **Unused Product / Liquid Waste:**

Do **not** pour into drains, sewers, or watercourses.

Collect and dispose through a licensed hazardous or industrial waste contractor.

Neutralize pH (adjust to 6–9) before discharge if permitted by local authority.

- **Used or Contaminated Material:**

Allow excess product to fully dry and harden if possible.

Dispose of solidified material as non-hazardous construction waste, following local regulations.

- **Wash Water / Rinseate:**

Should be collected and pH-adjusted before disposal.

Treat as alkaline industrial wastewater if released in large volumes.

- **Packaging:**

Rinse empty containers thoroughly.

Recycle if possible, or dispose of as non-hazardous solid waste in accordance with local legislation.

Do not reuse containers for other purposes.

- **Regulatory Compliance:**

Follow Egypt's Environmental Law No. 4/1994 and any relevant municipal or national waste disposal laws.

For international shipments or industrial-scale use, consult licensed environmental agencies and document disposal procedures.

Note: Always classify and dispose of waste based on actual use conditions and local waste management requirements.

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14. TRANSPORT INFORMATION

Mode of Transport	UN Number	Proper Shipping Name	Hazard Class	Packing Group
Road / Rail (ADR/RID)	Not regulated	Not classified as dangerous goods	—	—
Sea (IMDG)	Not regulated	Not classified as dangerous goods	—	—
Air (IATA/ICAO)	Not regulated	Not classified as dangerous goods	—	—

15. Regulatory Information**GHS Classification (Egypt / EU)****Hazard Classes:**

Skin Irritation – Category 2

Eye Irritation – Category 2A

STOT SE (Respiratory Irritation) – Category 3

Signal Word: Warning**Pictogram:****Hazard Statements:**

H315: Causes skin irritation

H319: Causes serious eye irritation

H335: May cause respiratory irritation

European Union (REACH/CLP)

All components are either registered under REACH or exempt.

Product classified and labelled according to Regulation (EC) No 1272/2008 (CLP).

United States (OSHA / TSCA / SARA)**TSCA:** All ingredients are listed or exempt.**OSHA HCS (29 CFR 1910.1200):** Product is considered hazardous.**Egyptian Regulation****Environmental Law No. 4/1994 (and amendments):**

Requires proper classification, labelling, and waste handling for chemical substances.

Compliance with national disposal and emissions standards is mandatory.

GHS Implementation: Egypt aligns with GHS Rev. 6 standards for classification and labelling.**Other International Inventories****Canada (DSL/NDSL):** All components listed.**Australia (AICS):** All components listed.**16. OTHER INFORMATION**

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