

## Sodium Silicate

Safety Data Sheet  
& Rules and Regulation

Revision Date:  
Supersedes:

### 1 PRODUCT & COMPANY IDENTIFICATION

|                      |                                                    |                     |                                                                  |
|----------------------|----------------------------------------------------|---------------------|------------------------------------------------------------------|
| <b>Product Name:</b> | Sodium Silicate                                    | <b>Distributor:</b> | Dr TRC Lab Private Limited                                       |
| <b>Synonyms:</b>     | Water glass, Liquid Glass,<br>Sodium metasilicate  | <b>Address:</b>     | H-269, DSIIDC Industrial Area,<br>North West Delhi, Delhi-110039 |
| <b>INCI Name:</b>    | Sodium Silicate                                    | <b>Website:</b>     | <a href="http://www.trckem.in">www.trckem.in</a>                 |
| <b>CAS Number:</b>   | 1344-09-8                                          |                     |                                                                  |
| <b>Product Form:</b> | Liquid or solid                                    |                     |                                                                  |
| <b>Product Use:</b>  | Used in detergents, cement,<br>and water treatment |                     |                                                                  |

### 2 HAZARDS IDENTIFICATION

|                                     |                                                                                                                |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------|
| <b>GHS Classification:</b>          | Skin Corrosion/Irritation Category 1B, Eye Damage/Irritation Category 1                                        |
| <b>GHS Labelling:</b>               | 1344-09-8                                                                                                      |
| <b>GHS Hazard Pictogram:</b>        |                              |
| <b>GHS Hazard Statements:</b>       | H314                                                                                                           |
| <b>GHS Precautionary Statement:</b> | P280                                                                                                           |
| <b>Potential Health Hazards:</b>    | Causes severe skin burns, eye damage, respiratory issues                                                       |
| <b>NFPA Rating(704):</b>            | a. <b>Health:</b> 3<br>b. <b>Flammability:</b> 0<br>c. <b>Reactivity:</b> 1<br>d. <b>Specific Hazard:</b> None |

### 3 COMPOSITION/INFORMATION ON INGREDIENTS

| Composition     | CAS No.   | Weight % | Molecular Weight |
|-----------------|-----------|----------|------------------|
| Sodium Silicate | 1344-09-8 | 100%     | 122.06 g/mol     |

### 4 FIRST AID MEASURES

|                    |                                                                                        |
|--------------------|----------------------------------------------------------------------------------------|
| <b>Eyes:</b>       | Rinse immediately with plenty of water for at least 15 minutes; seek medical attention |
| <b>Inhalation:</b> | Move to fresh air and seek medical help if necessary.                                  |
| <b>Skin:</b>       | Wash immediately with soap and water; remove contaminated clothing                     |
| <b>Ingestion:</b>  | Do not induce vomiting. Rinse mouth and seek medical help immediately                  |

### 5 FIRE-FIGHTING MEASURES



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|                                                              |                                                                                           |
|--------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Suitable (and Unstable Extinguishing Media):                 | Use water spray, foam, dry chemical powder, or CO <sub>2</sub> ; avoid direct water jets. |
| Special protective equipment & Precaution for Fire-fighters: | Wear self-contained breathing apparatus and protective clothing                           |
| Special Hazards arising from the Chemicals:                  | Generates corrosive fumes in fire.                                                        |

### 6 ACCIDENTAL RELEASE MEASURES

|                                                                  |                                                            |
|------------------------------------------------------------------|------------------------------------------------------------|
| Personal precaution, protective equipment & emergency procedure: | Wear protective gloves, goggles, and respirator.           |
| Environment precautions:                                         | Prevent the material from entering drains or waterways.    |
| Methods and material for containment and cleaning up:            | Use sand, earth, or an inert absorbent; clean up promptly. |

### 7 HANDLING & STORAGE

|                                                          |                                                                    |
|----------------------------------------------------------|--------------------------------------------------------------------|
| Precautions for safe handling:                           | Avoid direct contact; use personal protective equipment            |
| Condition for safe storage, incl. any incompatibilities: | Store in a cool, dry place. Keep away from strong acids and metals |

### 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

| Component       | Exposure Limit              | Basis     | Entity                |
|-----------------|-----------------------------|-----------|-----------------------|
| Sodium Silicate | No specific TLV established | ACGIH TLV | Occupational exposure |

#### Personal Protection

|             |                                     |
|-------------|-------------------------------------|
| Eyes:       | Safety goggles or face shield       |
| Inhalation: | Use an approved respirator          |
| Skin        | Wear protective gloves and clothing |
| Ingestion:  | Avoid consumption                   |

### 9 PHYSICAL AND CHEMICAL PROPERTIES

|                             |                                             |                               |                             |
|-----------------------------|---------------------------------------------|-------------------------------|-----------------------------|
| Appearance, Physical State: | Colorless to light yellow ; liquid or solid | Vapour Pressure:              | Negligible                  |
|                             |                                             | Density:                      | 1.4 - 1.6 g/cm <sup>3</sup> |
| Odour:                      | Odorless                                    | Evaporation Rate:             | N/A                         |
| Color:                      | Colorless to pale yellow                    | Flammability:                 | Not flammable               |
| Molecular Weight:           | 122.06 g/mol                                | Upper /lower Explosive limit: | N/A                         |
| pH(1% sol. In water):       | 11.5 - 13.5                                 | Flash Point:                  | Non-flammable               |
| Boiling Point:              | >100° C (liquid)                            | Specific Gravity:             | 1.4 - 1.6                   |
| Melting Point:              | 1080° C (solid)                             | Solubility:                   | Soluble in water            |



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### 10 STABILITY AND REACTIVITY

|                                   |                                                      |
|-----------------------------------|------------------------------------------------------|
| Reactivity:                       | Reacts with acids to release heat and silica gel     |
| Chemical Stability:               | Stable under normal conditions                       |
| Hazardous Polymerization:         | Will not occur                                       |
| Condition To Avoid:               | Avoid contact with acids, metals, or reducing agents |
| Incompatible Material:            | Strong acids, aluminum, magnesium                    |
| Hazardous Decomposition Products: | Silicon oxides, sodium oxides                        |

### 11 TOXICOLOGICAL INFORMATION

|                                 |                                                           |
|---------------------------------|-----------------------------------------------------------|
| Acute Toxicity:                 | Oral LD50 > 2000 mg/kg (rat)                              |
| Skin:                           | Causes severe burns                                       |
| Eyes:                           | Causes serious eye damage                                 |
| Respiratory:                    | Can cause irritation to the respiratory system            |
| Ingestion:                      | Harmful; causes digestive issues                          |
| Carcinogenicity:                | N/A                                                       |
| Teratogenicity:                 | Not classified                                            |
| Germ Cell Mutagenicity:         | Not classified                                            |
| Embryotoxicity:                 | N/A                                                       |
| Specific Target Organ Toxicity: | Can cause damage to the skin, eyes, and respiratory tract |
| Reproductive Toxicity:          | Not classified                                            |
| Respiratory/Skin Sensitization: | Not a sensitizer                                          |

### 12 ECOLOGICAL INFORMATION

|                                |                                |
|--------------------------------|--------------------------------|
| Ecotoxicity                    |                                |
| Aquatic Vertebrate:            | Toxic to fish                  |
| Aquatic Invertebrate:          | Toxic to aquatic invertebrates |
| Terrestrial:                   | N/A                            |
| Persistence and Degradability: | Biodegradable                  |
| Bioaccumulative Potential:     | No bioaccumulation expected    |
| Mobility in Soil:              | Mobile in soil                 |
| PBT and vPvB Assessment:       | N/A                            |
| Other Adverse Effects:         | Can cause harm to aquatic life |

### 13 DISPOSAL CONSIDERATIONS

|                     |                                                 |
|---------------------|-------------------------------------------------|
| Water Residue:      | Neutralize with dilute acid before disposal     |
| Product Containers: | Dispose of in compliance with local regulations |

The information in section 13 is for the product as shipped. Use and/or alterations to the product may change the characteristics of the material and alter the waste classification and proper disposal methods.

### 14 TRANSPORT INFORMATION

|                                 |     |
|---------------------------------|-----|
| DOP(Dept. Of Transport, India): | N/A |
|---------------------------------|-----|



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|                                                  |     |
|--------------------------------------------------|-----|
| TDG(Transport Of Dangerous Goods, India):        | N/A |
| IMDG(International Maritime Dangerous Goods:     | N/A |
| IATA(International Air Transport Association):   | N/A |
| ICAO(International Civil Aviation Organization): | N/A |

### 15 REGULATORY INFORMATION

No regulatory Information Available

### 16 OTHER INFORMATION

**Revision Date:** March 2024

**Compliance:** This document has been prepared in accordance with the SDS requirements

**Disclaimer:** This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Such information is to be the best of the company's knowledge and believed accurate and reliable as of the date indicated.

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