

## SAFETY DATA SHEET (SDS)

### ISE Logik MVRA 900

#### Section 1. Identification

<b>Product Identifier:</b>	ISE LOGIK MVRA 900
<b>Synonym</b>	sodium silicate, calcium hydroxide solution
<b>Other Means of Identification:</b>	
<b>Common Name:</b>	water-based, VOC free concrete moisture vapor reduction admixture
<b>SDS No.:</b>	ISE-201506B
<b>Recommended Use:</b>	added to ready mix concrete and other cementitious materials at time of batching in order to reduce moisture migration through the final product
<b>Recommended Restrictions:</b>	use in accordance with manufacturer's instructions
<b>Manufacturer/Distributor:</b>	
<b>Company Name:</b>	ISE Logik North America
<b>Address:</b>	2501 14th Street, Gulfport, MS 39501
<b>Phone Number:</b>	877.549.5159
<b>Technical Service:</b>	877.549.5159
<b>Website:</b>	<a href="http://www.iselogik.com">www.iselogik.com</a> (most updated SDS available on website)
<b>24 Hour Emergency Number:</b>	800.222.1222 American Association of Poison Control Centers

#### Section 2. Hazard(s) Identification

Classification of the chemical in accordance with 1910.1200(d) of OSHA Hazard Communication Standard, aligned with the UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS), Revision 3.

##### GHS Classification:

###### Health

Acute toxicity – dermal:	Not classified as acutely toxic for dermal exposure
Acute toxicity – inhalation:	No data available; not classified
Acute toxicity – oral:	Category 4; harmful if swallowed
Contact hazard – eye:	Category 2A; causes serious eye irritation
Contact hazard – skin:	Category 2; causes skin irritation
Carcinogenicity:	Not classified as a carcinogen per GHS criteria. This product is not classified as a carcinogen by NTP, IARC, or OSHA
Mutagenicity:	No data available, not classified
Reproductive/developmental:	No data available; not classified
Target organ toxicity:	No data available; not classified

##### Unknown Acute Toxicity:

Not applicable. This product was tested as a whole. This information only pertains to untested mixtures.

**Hazards Summary:** Alkaline. Irritating to eyes and skin. Spilled material is slippery.

**GHS Label Elements:**

Hazard pictogram; exclamation point



**Signal Word:**

Warning

**Physical Hazards:**

Spilled material is slippery.  
Once dry, may form thin glass that can cut skin.

**Chronic Hazards:**

No known chronic hazard.

**Health Hazards:**

Can cause serious irritation to the eyes.  
Causes moderate irritation to the skin.  
Harmful if swallowed. Can cause irritation to mouth, esophagus, or stomach if ingested or inhaled.  
Spray mist is irritating to respiratory system.

**Hazards Not Otherwise Classified:**

None known.

**Precautionary Statements:** Do not get in eyes, on skin, or on clothing. Wear protective gloves, protective clothing, eye, and face protection as appropriate. Avoid breathing mist or vapors. Avoid ingesting. Avoid prolonged exposure to skin. Wash thoroughly after handling. Do not eat, drink, or use any form of tobacco when using this product.

**Hazards Not Otherwise Classified:** None identified.

### Section 3. Composition / Information on Ingredients

Component	CAS Number	Weight %
Deionized water	7732-18-5	60 - 80
Hydrous sodium silicate	1344-9-08	20 - 35
Calcium hydroxide	1305-62-0	0.01 - 5

### Section 4. First Aid Measures

**Eye:** Immediately Irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 15 minutes. Remove contacts if able. Obtain immediate medical attention.

**Skin:** Wash affected skin with plenty of water. If symptoms develop, obtain medical attention. Take off contaminated clothing and wash before reuse.

**Inhalation:** If inhaled and adverse effects occur, remove patient to fresh air and keep at rest in a position comfortable for breathing. Call a Poison Center or seek medical attention if you feel unwell.

**Ingestion:** If swallowed, do not induce vomiting. Wash out mouth with water and give 200 – 300 ml (half a pint) of water to drink. Contact a Poison Center, or a doctor/physician, or get medical attention if you feel unwell.

**Most Important Symptoms/Effects (Acute and Delayed)** Solutions of sodium silicate are alkaline. Exposure to alkaline solutions may result in irritation to any contacted tissue, including possible burns, depending on the



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**SDS Revision Date:** June 2015

concentration, duration, and nature of the exposure. This material is not a crystalline silica, and it does not cause pulmonary silicosis.

**Acute Symptoms/Effects:**

**Eye:** Eye exposure may cause severe irritation, and pain. The full extent of injury may not be immediately apparent.

**Skin:** Skin exposure may cause irritation, redness and itching, swelling, or a burning sensation.

**Inhalation (Breathing):** Inhalation of this material may cause irritation, redness of upper and lower airways, coughing.

**Ingestion (Swallowing):** Exposure by ingestion may cause irritation, swelling, and perforation of upper and lower gastrointestinal tissues. Permanent scarring may occur.

**Delayed Symptoms/Effects:** Repeated and prolonged skin contact may cause a dermatitis

**Interaction with Other Chemicals Which Enhance Toxicity:** None known.

**Medical Conditions Aggravated by Exposure:** May aggravate preexisting conditions such as: Eye disorders that decrease tear production or have reduced integrity. Skin disorders that compromise the integrity of the skin such as: psoriasis, rashes, eczema, skin infections. Pulmonary disorders that compromise the integrity of the lungs such as asthma.

**Notes to Physician:** Treat as a corrosive substance. Treat symptoms with supportive care. There is no specific antidote. The absence of visible signs or symptoms of burns does NOT reliably exclude the presence of actual tissue damage. It may take 48-72 hours to assess the extent of an ocular burn.

## Section 5. Fire-Fighting Measures

**Suitable Extinguishing Media:** Use media appropriate for surrounding fire.

**Precautions for Fire-Fighters:** Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. Liquid material is an aqueous solution and non-flammable. Full protective equipment and NIOSH approved self-contained breathing apparatus recommended if fire where raw materials are stored.

**Fire and/or Explosion Hazard:** Excessive heat may produce hazardous decomposition products.

**Hazardous Combustion Products:** Calcium oxides; hydrogen

## Section 6. Accidental Release Measures

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind; keep out of low areas. (Also see Section 8).

Wear suitable protective clothing. Wear eye/face protection should be worn for spills and leaks. Caution: spillages may be slippery.

Small spills: Take up with sand or other noncombustible absorbent material and place into containers for later disposal.

Large spills: Dike far ahead of liquid spill for later disposal.

Do not flush or allow to enter drains, sewers, or watercourses. Prevent release to the environment if possible. Advise authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation. (Also see Section 15 for spill/release reporting information).

## Section 7. Handling and Storage

### Precautions for Safe Handling:

Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Avoid generation of mist. Avoid breathing vapor, mist, or spray. Use appropriate personal protective equipment (PPE). See Section 8, Exposure Controls and Personal Protection, for additional information.

### Safe Storage Conditions:

Store and handle in accordance with all current regulations and standards. Do not allow material to freeze. Keep container tightly closed and properly labeled. Do not store in aluminum container or use aluminum fittings or transfer lines, as flammable hydrogen gas may be generated. Provide an adequate bund wall for containment. Keep separated from incompatible substances (see below or Section 10 of the Safety Data Sheet).

### Incompatibilities/ Materials to Avoid:

Can generate heat when mixed with acids, Avoid prolonged contact with alkali sensitive metals such as: aluminum, brass, bronze, copper, lead, tin, zinc because flammable hydrogen gas can be generated

## Section 8. Exposure Controls / Personal Protection

**Regulatory Exposure Limit(s):** None. This product does not contain any components that have regulatory occupational exposure limits (OEL's) established.

**Non-Regulatory Exposure Limit(s):** An exposure limit of 2 mg/m<sup>3</sup> (15 min TWA – time weighted average) is recommended by analogy with sodium hydroxide (UK EH40).

**Engineering Controls:** Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (dilution and local exhaust), and control of process conditions.

### Personal Protective Equipment (PPE):

**Eye Protection:** Wear safety glasses with side-shields or chemical resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

**Skin and Body Protection:** Wear protective clothing to minimize skin contact.

**Hand Protection:** Wear appropriate chemical resistant gloves. Consult a glove supplier for assistance in selecting an appropriate chemical resistant glove (butyl rubber, natural rubber, neoprene, or nitrile).

**Respiratory Protection:** Respiratory protection not normally required. Advice on respiratory protective equipment is given in the HSE (Health and Safety Executive) publication HS(G)53.

## Section 9. Physical and Chemical Properties

<b>Physical state:</b>	Liquid	<b>Appearance:</b>	Opaque
<b>Color:</b>	hazy white	<b>Odor:</b>	Odorless
<b>Odor Threshold [ppm]:</b>	No data available	<b>pH:</b>	11.0 – 12.0

<b>Freezing Point/Range (°C):</b>	0	<b>Melting Point/Range (°C):</b>	Not applicable
<b>Boiling Point/Range (°C):</b>	100	<b>Flash point/Range (°C):</b>	Not applicable
<b>Evaporation rate:</b>	Not applicable	<b>Flammability (solid, gas):</b>	Not applicable
<b>Explosive limit ranges:</b>	Not applicable	<b>Vapor Pressure:</b>	Not applicable
<b>Vapor Density (air=1):</b>	No data available	<b>Density:</b>	10.0 - 12.0 lbs. /gal
<b>Solubility (water):</b>	Soluble	<b>Solubility (other):</b>	No data available
<b>Specific Gravity @75F:</b>	1.20 - 1.25	<b>Auto-ignition Point:</b>	Not applicable
<b>Decomposition Temperature:</b>	No data available	<b>Viscosity:</b>	Not applicable
<b>Explosive properties:</b>	Not applicable	<b>Explosive limit ranges:</b>	Not applicable
<b>Oxidizing properties:</b>	Not applicable	<b>Other Information:</b>	No data available

## Section 10. Stability and Reactivity

**Reactivity:** Not reactive under normal temperatures and pressures.

**Chemical Stability:** Stable at normal temperatures and pressures.

**Possibility of Hazardous Reactions:**

Prolonged contact with incompatible metals may produce flammable hydrogen gas. When arc welding vessels containing aqueous solutions of this material, take care to control any explosion risk from hydrogen evolved by electrolysis. Aqueous solutions will react with aluminum, zinc, tin and their alloys evolving hydrogen gas which can form an explosive mixture with air. Can react violently if in contact with acids. Can react with sugar residues to form carbon monoxide.

**Conditions to Avoid:** Prolonged exposure to temperatures below 32 °F (0 °C) because material will freeze. Prolonged storage above 140 °F (60 °C). All conditions that could lead to the possible hazardous reactions detailed above.

**Incompatibilities/ Materials to Avoid:** Can generate heat when mixed with acids. Avoid prolonged contact with alkali sensitive metals.

**Hazardous Decomposition Products:** None known

**Hazardous Polymerization:** Will not occur.

## Section 11. Toxicological Information

**Information on toxicological effects:**

**Acute toxicity**

<b>Ingestion</b>	All symptoms of acute toxicity are due to high alkalinity. Material will cause irritation. Oral LD50 (rat) 3400 mg/kg bw
<b>Inhalation</b>	Mist is irritant to the respiratory tract. All symptoms of acute toxicity are due to high alkalinity. Inhalation LC50 (rat) >2.06 g/m <sup>3</sup>
<b>Skin Contact</b>	Material will cause irritation. Dermal LD50 (rat) >5000 mg/kg bw
<b>Eye Contact</b>	Material will cause irritation.
<b>Skin corrosion/irritation</b>	Irritating to skin.
<b>Serious eye damage/irritation</b>	Irritating to eyes.
<b>Sensitization</b>	Not sensitizing.
<b>Mutagenicity</b>	No evidence of genotoxicity. In vitro/in vivo negative.
<b>Carcinogenicity</b>	Not classified as a carcinogen per GHS criteria.

**Reproductive toxicity**  
**STOT - single exposure**  
**STOT - repeated exposure**  
**Aspiration hazard**

No evidence of reproductive toxicity or developmental toxicity.  
 not classified  
 not classified. NOAEL oral (rat) >159 mg/kg bw/d  
 not classified

**Section 12. Ecological Information**

**Eco-toxicity**

**Aquatic toxicity:**

This material is believed to be practically non-toxic to aquatic life upon dilution. Significant concentrations can alter the pH of the aquatic environment to dangerous levels.

**Terrestrial toxicity:**

This material has exhibited slight toxicity to terrestrial organisms.

**Persistence and degradability:**

Inorganic. Soluble silicates, upon dilution, rapidly depolymerize into molecular species indistinguishable from natural dissolved silica.

**Bio-accumulative potential:**

Inorganic. The substance has no potential for bio-accumulation.

**Mobility in soil:**

Not applicable.

**Other adverse effects:**

The alkalinity of this material will have local effect on ecosystems sensitive to changes in pH.

**Section 13. Disposal Considerations**

**Waste from material:**

Dispose of this material in accordance with all applicable regulations at a hazardous or special waste collection point.

**Container Management:**

Containers are recyclable if handled by an organization trained in such. Otherwise, dispose of container in accordance with applicable local, regional, national, and/or international regulations. Container rinse must be disposed of in compliance with applicable regulations.

**Section 14. Transport Information**

**UN NUMBER:**

Not classified according to the United Nations 'Recommendations on the Transport of Dangerous Goods'. Not classified as hazardous under DOT or US Transport Recommendations. International Maritime Dangerous Goods (IMDG) Code: Not classified as hazardous

**UN Proper shipping name:**

Not applicable

**Transport hazard classes:**

Not applicable

**Packing group:**

Not applicable

**Environmental hazards:**

Not classified as a Marine Pollutant.

**Special precautions for user:**

Unsuitable containers: Aluminum



**Section 15. Regulatory Information**

**U.S. REGULATIONS**

**CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4):** Not regulated.

**SARA EHS Chemical (40 CFR 355.30):** Not regulated

**EPCRA SECTIONS 311/312 HAZARD CATEGORIES (40 CFR 370.10):** Health Hazard

**EPCRA SECTION 313 (40 CFR 372.65):** Not regulated.

**OSHA PROCESS SAFETY (PSM) (29 CFR 1910.119):** Not regulated

**FDA:** Sodium Silicates have Generally Recognized as Safe (GRAS) status under specific FDA regulations. Refer to 21 Code of Federal Regulations (CFR) 173, 175, 176, 177, 182, and 184, which is accessible on the FDA's website. This product is not produced under all current Good Manufacturing Practices (cGMP) requirements as defined by the Food and Drug Administration (FDA).

**NATIONAL INVENTORY STATUS**

**U.S. INVENTORY STATUS: Toxic Substance Control Act (TSCA):** All components are listed or exempt.

**TSCA 12(b):** This product is not subject to export notification.

**STATE REGULATIONS**

**California Proposition 65:** This product and its ingredients are not listed, but it may contain impurities/trace elements known to the State of California to cause cancer or reproductive toxicity as listed under Proposition 65 State Drinking Water and Toxic Enforcement Act.

**Section 16. Other Information**

**HMIS: (SCALE 0-4)**

**Health Rating:** 2  
**Flammability Rating:** 0  
**Reactivity Rating:** 0

**NFPA 704 - Hazard Identification Ratings (SCALE 0-4)**

**Health Rating:** 2  
**Flammability:** 0  
**Reactivity Rating:** 0

**IMPORTANT:**

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**End of Safety Data Sheet**