SECTION 1: Identification

1.1 Product identifier

Product name Al-Control

1.2 Other means of identification

Aluminum Corrosion Inhibitor

1.3 Recommended use of the chemical and restrictions on use

Water Treatment Application Product

1.4 Supplier's details

Richardson Electronics

Name

Address 40W267 Keslinger Road, Lafox, IL 60147-0393

Telephone Non-Emergency: (630) 208-2300

1.5 Emergency phone number(s) 800-424-9300 CHEMTREC®

SECTION 2: Hazard identification

General hazard statement

To the best of our knowledge, this Safety Data Sheet is prepared to comply with US OSHA 29 CFR1910.1200 and other governmental agencies both domestic and foreign. Hazard and precautionary statements are based on maximum listed concentrations of each hazardous ingredient. Unlisted ingredients are not "hazardous" per the OSHA Hazard Communication Standard (29 CFR 1910.1200) and/or other governmental agencies.

2.1 Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200)

- Acute toxicity, oral, Cat. 4
- Eye damage/irritation, Cat. 2A
- Skin corrosion/irritation. Cat. 2B

2.2 GHS label elements, including precautionary statements

Pictogram



Irritant

Signal word Warning

Hazard statement(s)

H302 Harmful if swallowed
H315 Causes skin irritation
H319 Causes serious eye irritation

Precautionary statement(s)

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P262 Do not get in eyes, on skin, or on clothing.
P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312 IF SWALLOWED: Call a POISON CENTER /doctor if you feel unwell,

P302+P352 IF ON SKIN: Wash with plenty of water for at least 15 minutes

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P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for

breathing.

P310 Immediately call a POISON CENTER/doctor if feeling unwell

P330 Rinse mouth.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P361+P364 Take off immediately all contaminated clothing and wash it before reuse.

P501 Dispose of contents/container in accordance with local/regional regulations

2.3 Other hazards which do not result in classification

No data available.

Statement regarding ingredients of unknown toxicity

No data available.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

3. Sodium silicate

Concentration 45 - 50 % (weight)

Other names / synonyms Silicic acid, sodium salt

CAS no. 1344-09-8

Acute Toxicity Oral, Cat. 5 Skin corrosion/irritation, Cat 2B Eye damage/irritation, Cat. 2A

H302- Harmful if swallowed H315-Causes skin irritation

H319-Causes serious eve irritation

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice Consult a physician. Show this safety data sheet to the doctor in attendance.

Move out of dangerous area.

If inhaled Remove person to fresh air and keep comfortable for breathing. Call a

poison center or doctor if you feel unwell.

Acute and delayed symptoms and effects: May cause respiratory irritation. Signs/symptoms may include burning pain in the nose and throat, coughing.

In case of skin contact

Take off immediately all contaminated clothing. Rinse skin with water/shower

for at least 15 minutes. Call a poison center or doctor if irritation develops or

persists. Wash contaminated clothing before reuse.

Acute and delayed symptoms and effects: Causes skin irritation. Signs/symptoms may include localized redness, swelling, itching.

In case of eye contact Rinse cautiously with water for at least 15 minutes. Remove contact lenses,

if present and easy to do. Continue rinsing. Immediately call a poison center

or doctor.

Acute and delayed symptoms and effects: Causes serious eye irritation. Signs/symptoms may include cloudy appearance of the cornea, chemical

burns, severe pain, tearing.

If swallowed Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or

doctor. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Never give anything by mouth to an unconscious person. Acute and delayed symptoms and effects: May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset,

nausea, vomiting and diarrhea.

Al-Control

4.2 Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

4.3 Indication of immediate medical attention and special treatment needed, if necessary

No data available.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Specific hazards arising from the chemical

None known other than material can splatter above 100°C/212°F.

5.3 Special protective actions for fire-fighters

Avoid any skin contact. Effects of contact or inhalation may be delayed. Fire may produce irritating, corrosive and/or toxic gases. Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution. Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection if necessary. Avoid breathing gas, mist, vapors, or spray. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Stop leak if you can do it without risk. Sweep up and shovel into suitable containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Do not swallow. Avoid breathing mist, vapors, or spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. See Section 8 for information on Personal Protective Equipment.

7.2 Conditions for safe storage, including any incompatibilities

Store away from incompatible materials. See Section 10 for information on Incompatible Materials. Keep out of the reach of children.

Specific end use(s)

Apart from the uses mentioned in section 1 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

3. Sodium silicate (CAS: 1344-09-8) PEL-TWA: None Est.; USA (OSHA) TLV®: None Est.; USA (ACGIH)

8.2 Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE) 8.3

Pictograms







Eye/face protection

Safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Wear protective gloves. Consult manufacturer specifications for further information.

Body protection

Wear protective clothing. Clothing with full length sleeves and pants should be worn. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Thermal hazards

No data available.

Control banding approach

No data available.

Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)

Odor

Odor threshold

Melting point/freezing point

Initial boiling point and boiling range

Flash point

Evaporation rate

Flammability (solid, gas)

Upper/lower flammability limits

Upper/lower explosive limits

Vapor pressure

Vapor density

Specific Gravity

Solubility(ies)

Partition coefficient: n-octanol/water

Auto-ignition temperature

Decomposition temperature

Viscosity

Explosive properties Oxidizing properties

Clear to Hazy liquid

Characteristic

Characteristic

12.9+/-

32°F+/-

212°F +/-

No data available.

1.00

Non-flammable

No data available.

No data available. No data available.

No data available.

1.58 + / -

Completely soluble in water

No data available.

No data available.

No data available.

No data available.

No data available. No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Contact with incompatible materials. Sources of ignition. Exposure to heat.

10.2 Chemical stability

Stable under normal storage conditions.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Heat, flames and sparks. Incompatible products. Keep away from open flames, hot surfaces and sources of ignition.

10.5 Incompatible materials

Avoid contact with Strong Acids, Strong Alkalis, Oxidizers or any other type of reactive material.

10.6 Hazardous decomposition products

No data available on product. In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Likely Routes of Exposure: Eye contact. Skin contact. Inhalation. Ingestion.

Components: No data available.

Symptoms (including delayed and immediate effects):

Inhalation: May cause respiratory irritation. Signs/symptoms may include burning pain in the nose and throat, coughing

Ingestion: May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Skin corrosion/irritation

Sodium silicate: LD50 Skin - Rabbit - 4640mg/kg

Serious eve damage/irritation

Causes serious eye irritation. Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing.

Respiratory or skin sensitization

May cause allergy or asthma symptoms or breathing difficulties if inhaled

Germ cell mutagenicity

No data available.

Carcinogenicity

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available.

Summary of evaluation of the CMR properties

No data available.

STOT-single exposure

No data available.

STOT-repeated exposure

No data available.

Aspiration hazard

No data available.

Additional information

No data available.

SECTION 12: Ecological information

Toxicity

No data available on product

Components:

Sodium silicate: LC50 - Daphnia magna (water flea) - 247mg/l - 96hr

Persistence and degradability

No data available on product

Bioaccumulative potential

No data available on product

Mobility in soil

No data available.

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects

No data available.

SECTION 13: Disposal considerations

Disposal of the product

Disposal should be in accordance with applicable Federal, State and local laws and regulations. Local regulations may be more stringent than State or Federal requirements.

Disposal of contaminated packaging

Dispose of as unused product.

Waste treatment

Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable federal, state and local regulations.

Sewage disposal

Avoid runoff into storm sewers and ditches which lead to waterways.

Other disposal recommendations

Triple rinse the empty containers with water before disposal to reconditioned or land fill or garbage.

SECTION 14: Transport information

DOT (US)

UN Number: NA Class: NA

Packing Group: NA

Proper Shipping Name: NON-REGULATED MATERIALS

Reportable quantity (RQ): NA

Marine pollutant: No

Poison inhalation hazard: No

IMDG

UN Number:

Class:

Packing Group: EMS Number:

Proper Shipping Name:

IATA

UN Number:

Class:

Packing Group:

Proper Shipping Name:

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III. Section 302.

SARA 311/312 Hazards

Chronic Health Hazards

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Toxic Substances Control Act (TSCA) Inventory

All components of this product are listed in the U.S. Environmental Protection Agencies, Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA):

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) RQ: Not listed

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

No components are subject to the Pennsylvania Right to Know Act.

New Jersey Right To Know Components

No components are subject to the New Jersey Right to Know Act.

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

HMIS Rating



NFPA Rating



SECTION 16: Other information

16.1 Further information/disclaimer

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall manufacturer be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, whatsoever arising, even if manufacturer has been advised of the possibility of such damages. Date of Preparation/Revision: 5/2022