

SRI-5A

SAFETY DATA SHEET



SECTION 1 – IDENTIFICATION

Product Identifier: SRI-5A

EPA Pesticide Registration Number: 72714-2-43553

Recommended use: A microbiocidal bactericide, fungicide, algaecide, and slimicide.

Distributed by : CH2O, Inc.
8820 Old Hwy 99 SE
Turnwater, WA 98501

24 Hour Emergency Phone: (360) 943-6063
CHEMTREC: (800) 424-9300

SECTION 2 – HAZARDS IDENTIFICATION

Hazard Classification

GHS classification in accordance with 29 CFR 1910.1200
Skin Corrosion/Irritation – Category 2
Eye Irritation: Category 2A

Label Elements

Pictograms:



Signal Word:

WARNING

Hazard Statement(s):

H315 – Causes skin irritation.
H319 – Causes serious eye irritation.

Precautionary Statement(s):

P234 – Keep only in original container.
P264 – Wash hands thoroughly after handling.
P261 – Avoid breathing dust/fume/gas/mist/vapors/spray.
P272 – Contaminated work clothing should not be allowed out of the workplace.
P362 - Take off contaminated clothing and wash before reuse.
P280 – Wear protective gloves/protective clothing/eye protection/face protection.

Response Statement(s):

P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 – IF eye irritation persists: Get medical advice/attention.
P302+352 – IF ON SKIN: Wash with plenty of soap and water.
P332+313 – IF Skin irritation occurs: Get medical advice/attention.

P301+330+331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P391+P312 – IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P304+340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Storage Statement(s): P405 – Store locked up.

Disposal Statement: P501 – Dispose of contents/container to national and international regulations.

Other hazards: No data available

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

This product is a mixture.

Component	CAS No.	% by Wt.
2,2-Dibromo-3-nitrilopropionamide	10222-01-2	5.2 – 5.8
Polyethylene glycol	25322-68-3	45.0 – 75.0
Water	7732-18-5	20.0 – 50.0

SECTION 4 – FIRST AID MEASURES

Description of first aid measures

General Advice: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Eye Contact: Wash immediately and continuously with flowing water for a minimum of 30 minutes, while holding eyelids apart to ensure flushing of entire surface. If easy to do, remove contact lenses after the first 5 minutes and continue washing. Do not let exposed individual rub eyes. Obtain prompt medical consultation preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

Skin Contact: Take off contaminated clothing. Wash skin with soap and plenty of water for 15-20 minutes. May cause an allergic skin reaction. In case of skin irritation or allergic reactions see a physician. Wash clothing before reuse. Shoes and other leather items which cannot be decontaminated should be disposed of properly. Suitable emergency safety shower facility should be immediately available.

Inhalation: Move person to fresh air. Get medical attention immediately if symptoms occur. If symptoms persist, call poison control center or a physician for treatment advice. If person is not breathing, give artificial respiration. If by mouth to mouth, use rescuer protection (pocket mask etc.). Call an emergency responder or ambulance.

Ingestion: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed Notes to physician: Chemical eye burns may require extended irrigation. Obtain prompt consultation, preferably from an ophthalmologist. If burn is present, treat as any thermal burn, after decontamination. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment.

SECTION 5 – FIRE FIGHTING MEASURES

Suitable Extinguishing Media: To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam.

Unsuitable Extinguishing Media: Do not use direct water stream. May spread fire.

Special Firefighting Procedures: Use self-contained breathing apparatus (SCBA) in pressure demand and full protective gear. Use water spray to cool unopened containers.

Unusual Fire and Explosive Hazards: No data available.

Special hazards arising from the substance or mixture

Hazardous combustion products: Under fire conditions some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds. Combustion products may include and are not limited to: Nitrogen oxides. Hydrogen bromide. Carbon monoxide. Carbon dioxide.

Unusual Fire and Explosion Hazards: This material will not burn until the water has evaporated. Residue can burn. Container may rupture from gas generation in a fire situation.

Special Firefighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. If product becomes contaminated with water, monitor product for heat generation and/or decomposition. Fight fire from protected location or safe distance. Move containers from fire area if this is possible without hazard. Contain fire water run-off if possible. Review the "Accidental Release Measures" and the "Ecological Information" sections of this SDS.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes helmet, coat, trousers, boots, and gloves). Avoid contact with this material during firefighting operations. If contact is likely, change to full chemical resistant firefighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures: Evacuate area. Keep upwind of spill/leak. Refer to section 7, Handling, for additional precautionary measures. Only trained and

properly protected personnel must be involved in clean-up operations. Ventilate area of leak or spill. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental Precautions: Avoid or prevent from entering into soil, ditches, drains/sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and materials for containment and cleaning up: Contain spilled material if possible. Attempt to neutralize by adding materials such as sodium bisulfite or sodium metabisulfite. Neutralize with approximately 17.2 grams sodium bisulfite (NaHSO₃) or 15.7 grams sodium meta bisulfite (Na₂S₂O₅) for every 100 grams biocidal product. Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

SECTION 7 - HANDLING AND STORAGE

Conditions for Safe Handling: Keep out of reach of children. Avoid contact with the eyes, skin and clothing. Avoid breathing mists, vapors or aerosols. Avoid prolonged or repeated contact with skin. Do not swallow. Wash thoroughly with soap and water after handling. Use with adequate ventilation. Wear protective clothing and equipment as described in Section 8. Exposure Controls and Personal Protection.

Conditions for Safe Storage: Store in original container. Keep container tightly closed when not in use in a dry, cool, well-ventilated, shaded area, away from heat sources. Store locked up. Store away from incompatible material(s).

Storage Stability

Shelf Life: Use within 12 months

Storage Temperature: ≤ 35°C (≤ 95°F)

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

If exposure limits exist, they are listed below. If no limits are displayed, then no values are applicable.

Occupational Exposure Limits

Component	CAS No.	OSHA PEL	ACGIH TLV	NIOSH IDLH
2,2-Dibromo-3-nitropropionamide	10222-01-2	-	-	-
Polyethylene glycol	25322-68-3	-	-	-
Water	7732-18-5	-	-	-

Engineering Controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Personal Protective Equipment

Eye/Face Protection: Chemical safety goggles or safety glasses are required.

Hand Protection: Use gloves chemically resistant to this material: butyl rubber, polyethylene, chlorinated polyethylene, ethyl vinyl alcohol laminate ("EVAL"). Other acceptable glove barrier

materials include Viton, Neoprene, Polyvinyl chloride ("PVC" or "vinyl"), and/or Nitrile/butadiene rubber ("nitrile" or "NBR"). Avoid gloves made of: Polyvinyl alcohol ("PVA"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Skin Protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or fully body suit will depend on the task.

Respiratory Protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. In misty atmospheres, use an approved particulate respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

General Hygiene Considerations: Avoid contact with eyes, skin or clothing. Eye wash fountains and safety showers in the workplace are strongly recommended. Wash thoroughly after use.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear, yellow to amber liquid
Odor	Mild chlorine/bromine-like
Specific Gravity @ 23°C	1.12 +/- 0.05
Boiling Point	> 70.0 °C (158.0 °F)
Freezing Point	N/D
Decomposition Temperature	> 70.0 °C (158.0 °F)
Auto-Ignition Temperature	N/A
Flash Point (Closed Cup)	182°C (360°F)
Explosive Limits	N/A
pH	2.0 - 5.0
Solubility in Water	Soluble
Vapor Pressure @ 25.0 °C (77.0 °F)	15 mmHg
Vapor Density (Air = 1)	< 1
Percent Volatile	N/D
Evaporation Rate	< 1

N/A = Not Applicable, N/D= Not Determined

NOTE: The physical data presented above represent typical values and should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: No data available.

Chemical Stability: Stable under recommended storage conditions. See Storage, Section 7.

Possibility of Hazardous Reactions: Polymerization will not occur.

Conditions to Avoid: Exposure to light and/or heat. Avoid temperatures above 70°C (185°F). Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems.

Incompatible Materials: Avoid contact with: Strong bases, Strong oxidizing agents, and/or Reducing agents.

Hazardous Decomposition Products: Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to carbon dioxide, bromine, cyanogen bromide and/or dibromoacetonitrile. Toxic gases are released during decomposition.

SECTION 11 - TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available. The following data refer to studies conducted on the product unless otherwise specified.

Acute Toxicity

Acute Oral Toxicity: Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

LD50, Rat, 2860 mg/kg

Acute Dermal Toxicity: Prolonged skin contact is unlikely to result in absorption of harmful amounts.

LD50, Rat/Rabbit, > 4,000 mg/kg (mixture containing 20% DBNPA)

Acute Inhalation Toxicity: Mist may cause irritation of upper respiratory tract (nose and throat).
LC50, Rat, 4 Hour, dust/mist, 1.05 mg/l (nose only, mixture containing 20% DBNPA)

Skin corrosion/irritation: Irritant. Brief contact may cause skin irritation. Symptoms may include pain, severe local redness and tissue damage.

Serious eye damage/eye irritation: Irritant. May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

Sensitization: Not a sensitizer.

Respiratory Sensitization: No information available.

Specific Target Organ Systemic Toxicity (Single Exposure): The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific Target Organ Systemic Toxicity (Repeated Exposure): Excessive exposure may increase the blood and tissue levels of bromine. Observations in animals include kidney effects following repeated ingestion of active ingredient, but no evidence of systemic toxicity following repeated dermal exposure at maximum attainable doses

Genotoxicity: Did not induce DNA repair synthesis in the hepatocytes of male rats in vitro. Not clastogenic in chromosome aberration test with human lymphocytes and Chinese hamster cells.

Carcinogenicity: Not classified by IARC. Not included in NTP 14th Report on Carcinogens. Active ingredient (DBNPA) did not cause cancer in laboratory animals.

Teratogenicity: Not teratogenic. NOAEL (for fetal toxicity in rabbits was ≥ 10 mg/kg/day) for the active ingredient (DBNPA).

Reproductive toxicity: The product did not demonstrate reproductive toxicity. In a 2-generation study in rat, the NOEL for reproduction parameters was ≥ 30 mg/kg/day for the active ingredient (DBNPA).

Mutagenicity: Not mutagenic by the Ames Test.

Aspiration Hazard: Based on physical properties, not expected to occur.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available. Ecological data have not been determined specifically for this product. The environmental toxicity data mentioned below are for studies conducted or from published literature on the active ingredient: 2,2-dibromo-3-nitropropionamide.

Toxicity

Acute Toxicity to Fish

Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).

LC50, *Oncorhynchus mykiss* (rainbow trout), 96 Hour, 2.3 mg/l

LC50, *Cyprinodon variegatus* (sheepshead minnow), 96 Hour, 3.4 mg/l

LC50, *Lepomis macrochirus* (bluegill sunfish), 96 Hour, 2.3 mg/l

Acute Toxicity to Crustacea

LC50, *Mysidopsis bahia* (Mysid shrimp), 48 Hour, 0.72 mg/l

Acute Toxicity to Aquatic Invertebrates

EC50, *Daphnia magna* (Water flea), static test, 48 Hour, 0.86 mg/l

Acute Toxicity to Algae/Aquatic Plants

EC50, *Pseudokirchneriella subcapitata* (green algae), 72 Hour, Growth rate inhibition, 1.5 mg/l

EC50, Freshwater algae, 72 Hour, Growth rate inhibition, 0.28 mg/l

Chronic Aquatic Toxicity

Chronic Toxicity to Aquatic Invertebrates

NOEC, *Daphnia magna* (Water flea), flow-through test, 21 d, 0.06 mg/l (measured)

Persistence and Degradability

Biodegradability: Considered to be rapidly degradable.

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient: n-octanol/water(log Pow): 0.79 Measured

Bioconcentration factor (BCF): 13 Fish Measured

Mobility in soil

Potential for mobility in soil is very high (Koc between 0 and 50).

Partition coefficient (Koc): 15 Estimated.

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal Procedure: All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. As your supplier, we have no control over the management practices or parties handling or using this material. The information presented here pertains only to the product as shipped in its intended condition as described in SDS Section 3, Composition Information. For unused or uncontaminated product, the preferred options include sending to a licensed, permitted incinerator or other destruction device.

SECTION 14 - TRANSPORT INFORMATION

DOT: Not regulated.

TDG: Not regulated.

IMO-IMDG: Not regulated.

ICAO/IATA: Not regulated.

SECTION 15 - REGULATORY INFORMATION**US Federal Regulations****U.S. TSCA (Toxic Substances Control Act) – Section 5(a)(2)**

This product does not contain any substances subject to Significant New Use Rules (SNURs).

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications. Under the amended regulations at 40 CFR 370, EPCRA 311/312 Tier II reporting for the 2017 calendar year will need to be consistent with updated hazard classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulation

The following chemicals are listed because of the additional requirements of Pennsylvania and New Jersey law:

<u>Components</u>	<u>CAS No.</u>
2,2-Dibromo-3-nitrilopropionamide	10222-01-2

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory (NZIoC)	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
Thailand	Thailand Inventory FDA Existing Chemicals (TECI)	Yes
Vietnam	Vietnam National Chemicals Inventory (NCI)	Yes
U.S.A. & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes
Mexico	National Inventory of Chemical Substances (NSQ)	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

U.S. EPA Label Information

EPA Pesticide Registration Number:	72714-2-43553
EPA Pesticide Label	Warning Causes skin irritation. Causes serious eye irritation. Causes irreversible eye damage Harmful if swallowed, inhaled or absorbed through the skin Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. This product is toxic to fish and aquatic organisms.

SECTION 16 – OTHER INFORMATION

Issue Date:	April 18, 2024
Revision Date:	N/A
Revision Summary:	None
Prepared By:	Product Stewardship Team
Revision Information:	N/A

<p>This Safety Data Sheet was prepared to comply with the OSHA Hazard Communication Standard, 29 CFR 1910.1200. Aquaserv provides no warranties; either expressed or implied and assumes no responsibility for the accuracy or completeness of the data contained herein. The data contained in this Safety Data Sheet reflects the latest information available to us on hazards, properties, and handling of this product under the recommended conditions of use. The information on this Safety Data Sheet relates only to the material as supplied and does not relate to combinations with other materials or processes.</p>
--