RICCA CHEMICAL COMPANY®

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation Starch Indicator, with 5% Potassium Iodide

Product Number 8051

Other Identifying Product Numbers 8051-16

1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

1.3. Details of the Supplier of the Safety Data Sheet

Company Ricca Chemical Company

Address 412 West Fork Drive

Arlington, TX 76012 USA

Telephone 888-467-4222

1.4. Emergency Telephone Number (24 hours)

CHEMTREC (USA)	800-424-9300
CHEMTREC (International)	1+ 703-527-3887

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SECTION 2: Hazard(s) Identification

2.1. Classification of the Substance or Mixture

Hazard Class	Category	Hazard Statements	Precautionary Statements
Specific Target Organ Toxicity - Repeated Exposure	Category 1	H372	P260,P264,P270,P314,P501

2.2. GHS Label Elements

Pictograms:

Signal Word: **Danger**

Hazard Statements:

NOTE: Hazard statements may be combined on labels to improve clarity and readability.

Hazard Number	Hazard Statement
H372	Causes damage to thyroid through prolonged or repeated exposure

Precautionary Statements:

NOTE: Precautionary statements may be combined or consolidated on labels to improve clarity and readability.

Prevention

Precautionary Number	Precautionary Statement
P260	Do not breathe fumes or mist.
P264	Wash hands, arms, and face thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.

Response

Precautionary Number	Precautionary Statement
P314	Get medical advice or attention if you feel unwell.

Disposal

Precautionary Number	Precautionary Statement
P501	Dispose of contents/container to suitable waste stream in accordance with local, state, federal, and international regulations.

2.3. Hazards not Otherwise Classified

No other hazards identified.

2.4. Ingredients of Unknown Acute Toxicity

5.8 percent of this mixture consists of ingredient(s) of unknown acute inhalation toxicity.

SECTION 3: Composition / Information on Ingredients

3.1. Components of Mixture

Chemical Name (IUPAC)	Common Name and Synonyms	CAS Number	Weight%
water	Water	7732-18-5	94.20
potassium iodide	Potassium Iodide	7681-11-0	5.24
(2R,3S,4S,5R,6R)-2-(hydroxymethyl)-6-[(2R,3S,4R,5R,6S)-4,5,6-trihydroxy-2-(hydroxymethyl)oxan-3-yl]oxyoxane-3,4,5-triol	Starch, soluble; Amylodextrin	9005-84-9	0.52
dichlorozinc	Zinc Chloride	7646-85-7	< 0.1
sodium thiosulfate pentahydrate	Sodium Thiosulfate Pentahydrate	10102-17-7	< 0.1
	Organic Preservative	Proprietary	< 0.1
disodium carbonate	Sodium Carbonate; Carbonic acid, disodium salt; Soda ash	497-19-8	< 0.1

SECTION 4: First-Aid Measures

4.1. Description of Necessary Measures

Eye Contact: May cause irritation, redness, pain, and tearing.

Ingestion: Dilute with water or milk. Call a physician if necessary.

Inhalation: Not expected to require first aid. If necessary, remove to fresh air.

Skin Contact: May cause slight irritation.

4.2. Most Important Symptoms and Effects, Acute and Delayed

Causes damage to thyroid through prolonged or repeated exposure Wash areas of contact with water. Non-flammable, non-toxic, non-corrosive. Does not present any significant health hazards. EYE CONTACT: May cause irritation, redness, pain, and tearing. SKIN CONTACT: May cause slight irritation.

4.3. Immediate Medical Attention or Special Treatment Needed

Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Flush with plenty of water for at least 15 minutes. Call a physician if irritation develops. Dilute with water or milk. Call a physician if necessary.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing Media

Use any means suitable for extinguishing surrounding fire.

5.2. Specific Hazards Arising from the Substance or Mixture in a Fire

Not considered to be a fire or explosion hazard.

5.3. Special Protective Equipment and Precautions for Firefighters

Use protective clothing and breathing equipment appropriate for the surrounding fire.

SECTION 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear appropriate PPE for the size and nature of the spill. As a general rule, wear safety glasses and gloves.

6.2. Cleanup and Containment Methods and Materials

Absorb with inert material (vermiculite, sand). Ventilate, if necessary, site of spillage well to evaporate remaining liquid and dispel vapor. Do not flush to sewer. Always comply with local, state, and federal regulations.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling and Storage Conditions

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

SECTION 8: Exposure Controls / Personal Protection

8.1. Exposure Limits

U.S. OSHA - Permissible Exposure Limits (PEL) - Time Weighted Averages (TWA)

Chemical Name	CAS Number	Exposure Limit
Zinc Chloride	7646-85-7	1 mg/m3 TWA (fume)

U.S. OSHA - Permissible Exposure Limits (PEL) - Ceiling Limits

No limits found.

U.S. OSHA - Permissible Exposure Limits (PEL) - Short Term Exposure Limits (STEL)

No limits found.

U.S. OSHA - Specifically Regulated Chemicals

No limits found.

ACGIH - Threshold Limit Values - Ceilings (TLV-C)

No limits found.

ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)

Chemical Name	CAS Number	Exposure Limit
Zinc Chloride	7646-85-7	2 mg/m3 STEL (fume)

ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

Chemical Name	CAS Number	Exposure Limit
Zinc Chloride	7646-85-7	1 mg/m3 TWA (fume)
Potassium Iodide	7681-11-0	"0.01 mg/m3 TWA (inhalable particulate matter, as I)" As Iodides [RR-42509-2]

8.2. Engineering Controls

No specific controls are needed. Normal room ventilation is adequate.

8.3. Individual Protective Measures and Personal Protective Equipment

Respiratory Protection: Normal room ventilation is adequate.

Skin Protection: Chemical resistant gloves.

Eye Protection: Safety glasses or goggles.

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SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Physical State:	liquid
Color:	White translucent
Odor:	Data not available.
Odor Threshold:	Data not available.
Melting/Freezing Point:	Approximately 0°C
Boiling Point/Range:	Approximately 100°C
Flammability:	Data not available.
Flammability/Explosive Limits:	Data not available.
Flash Point:	Not flammable
Auto-Ignition Temperature:	Data not available.
Decomposition Temperature:	Data not available.
pH:	N/A
Kinematic Viscosity:	Data not available.
Solubility:	miscible
Vapor Pressure:	Data not available.
Evaporation Rate:	Data not available.
Relative Density:	1.05
Relative Vapor Density:	Data not available.
Particle Characteristics:	Data not available.
Partition Coefficient n-octanol/water, log	Data not available.

SECTION 10: Stability and Reactivity

10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

10.2. Possibility of Hazardous Reactions

Data not available.

10.3. Conditions to Avoid and Incompatible Materials

Strong oxidizing agents.

10.4. Hazardous Decomposition Products

Will not occur.

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SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Not acutely toxic.

Chemical Name	CAS Number	Toxicity
Sodium Carbonate	497-19-8	Oral LD50 Rat 4090 mg/kg (Source: NLM_HSDB)
Zinc Chloride	7646-85-7	Oral LD50 Acute Toxicity Estimate 500 mg/kg (ECHA)
Potassium Iodide	7681-11-0	Oral LD50 Rat 2779 mgkg (Source: Canada_WHMIS)

Acute Toxicity - Dermal Exposure:

Not acutely toxic.

Chemical Name	CAS Number	Toxicity
Sodium Carbonate	497-19-8	Dermal LD50 Rabbit >2000 mg/kg (no deaths occurred, Source: ECHA)
Potassium Iodide	7681-11-0	Dermal LD50 Rat >2000 mg/kg (Source: ECHA_API)

Acute Toxicity - Inhalation Exposure:

Not acutely toxic.

Chemical Name	CAS Number	Toxicity
Sodium Carbonate	497-19-8	Inhalation LC50 Rat 2300 mg/m3 2 h (aerosol, Source: ECHA_API)
Zinc Chloride	7646-85-7	Inhalation LC50 Rat <=1975 mg/m3 10 min (aerosol, Source: ECHA_API)

11.2 Carcinogenicity:

International Agency for Research on Cancer (IARC)

Chemical Name	CAS Number	Classification
	No data found.	

National Toxicology Program (NTP)

Chemical Name	CAS Number	Classification
	No data found.	

U.S. OSHA specifically regulated carcinogens

Chemical Name	CAS Number	Classification
	No data found.	

11.3 Additional Toxicology Information:

Causes damage to thyroid through prolonged or repeated exposure.

SECTION 12: Ecological Information

12.1. Ecotoxicity

Chemical Name	CAS Number	Species	Exposure	Toxicity
Sodium Carbonate	497-19-8	Freshwater Fish	Acute	LC50 96 h Lepomis macrochirus 300 mg/L [static] (EPA); LC50 96 h Pimephales promelas 310 - 1220 mg/L [static] (EPA)
Potassium Iodide	7681-11-0	Freshwater Fish	Acute	LC50 96 h Danio rerio >100 mg/L [static] (ECHA)
Sodium Carbonate	497-19-8	Water Flea	Acute	EC50 48 h Daphnia magna 265 mg/L (IUCLID)

12.2. Persistence and Degradability

Data not available.

12.3. Bioaccumulative Potential

Data not available.

12.4. Mobility in soil

Data not available.

12.5. Other Adverse Ecological Effects

Data not available.

SECTION 13: Disposal Considerations

13.1. Waste Treatment Methods

Data not available.

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SECTION 14: Transportation Information

14.1 Transportation by Land - Department of Transportation (DOT, United States of America)

Not regulated according to DOT regulations.

14.2 Transportation by Air - International Air Transport Association (IATA)

Not regulated according to IATA Dangerous Goods Regulations.

14.3 Transportation of Dangerous Goods (TDG, Canada)

Not regulated according to TDG regulations.

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SECTION 15: Regulatory Information

15.01. Occupational Safety and Health Administration (OSHA) Hazards

Chemical Name	CAS Number	Regulatory Information
		No data found.

15.02. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Chemical Name	CAS Number	RQ
		No data found.

15.03. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Chemical Name	CAS Number	Regulatory Information
Zinc Chloride	7646-85-7	1000 lb final RQ; 454 kg final RQ

15.04. Superfund Amendments and Reauthorization Act (SARA) 313 Toxics Release Inventory (TRI)

Chemical Name	CAS Number	List	Regulatory Information
Zinc Chloride	7646-85-7	Emission Reporting	"1.0 % de minimis concentration (includes any unique chemical substance that contains Zinc as part of that chemical's infrastructure, listed under Chemical Category N982)" As Zinc compounds [RR-00578-7]

15.05. Massachusetts Right-to-Know Substance List

Chemical Name	CAS Number	Regulatory Information
Zinc Chloride	7646-85-7	Present (fume)

15.06. Pennsylvania Right-to-Know Hazardous Substances

Chemical Name	CAS Number	Regulatory Information
Zinc Chloride	7646-85-7	Environmental hazard (including fume)

15.07. New Jersey Worker and Community Right-to-Know Components

Chemical Name	CAS Number	Regulatory Information
Zinc Chloride	7646-85-7	sn 2030

15.08. California Proposition 65

Chemical Name	CAS Number	Regulatory Information
		No data found.

15.09. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Chemical Name	CAS Number	List	Status
Sodium Thiosulfate Pentahydrate	10102-17-7	DSL	Present
Sodium Carbonate	497-19-8	DSL	Present
Zinc Chloride	7646-85-7	DSL	Present
Potassium Iodide	7681-11-0	DSL	Present
Water	7732-18-5	DSL	Present
Starch, soluble	9005-84-9	DSL	Present

15.10. United States of America Toxic Substances Control Act (TSCA) List

Chemical Name	CAS Number	Status
Sodium Thiosulfate Pentahydrate	10102-17-7	"Present (ACTIVE)" As Thiosulfuric acid (H2S2O3), sodium salt (1:2) [7772-98-7]
Sodium Carbonate	497-19-8	Present (ACTIVE)
Zinc Chloride	7646-85-7	Present (ACTIVE)
Potassium Iodide	7681-11-0	Present (ACTIVE)
Water	7732-18-5	Present [XU] (ACTIVE)
Starch, soluble	9005-84-9	Present [XU] (ACTIVE)

15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Chemical Name	CAS Number	List	Number
Sodium Thiosulfate Pentahydrate	10102-17-7	EINECS	"231-867-5" As Sodium thiosulphate [7772-98-7]
Sodium Carbonate	497-19-8	EINECS	207-838-8
Zinc Chloride	7646-85-7	EINECS	231-592-0
Potassium Iodide	7681-11-0	EINECS	231-659-4
Water	7732-18-5	EINECS	231-791-2
Starch, soluble	9005-84-9	EINECS	232-686-4

15.12. China - Inventory of Existing chemical Substances (IECSC)

Chemical Name	CAS Number	Status
Sodium Thiosulfate Pentahydrate	10102-17-7	Present [22800]
Sodium Carbonate	497-19-8	Present [34127]
Zinc Chloride	7646-85-7	Present [24167]
Potassium Iodide	7681-11-0	Present [05768]
Water	7732-18-5	Present [32224]
Starch, soluble	9005-84-9	Present [21847]

15.13. Korea - Existing Chemicals Inventory (KECI/KECL)

Chemical Name	CAS Number	List	Status
Sodium Thiosulfate Pentahydrate	10102-17-7	Annex 1	"Present [KE-31633]" As Sodium thiosulfate [7772-98-7]
Sodium Carbonate	497-19-8	Annex 1	Present [KE-31380]
Zinc Chloride	7646-85-7	Annex 1	Present [KE-35535]
Potassium Iodide	7681-11-0	Annex 1	Present [KE-29149]
Water	7732-18-5	Annex 1	Present [KE-35400]
Starch, soluble	9005-84-9	Annex 1	Present [KE-01773]

15.14. Japan - Existing and New Chemical Substances Inventory (ENCS)

Chemical Name	CAS Number	MITI No.
Sodium Thiosulfate Pentahydrate	10102-17-7	(1)-503
Sodium Carbonate	497-19-8	(1)-164
Zinc Chloride	7646-85-7	(1)-264
Potassium Iodide	7681-11-0	(1)-439
Water	7732-18-5	- (listed on Japanese Pharmacopoeia 8th Edition)

SECTION 16: Other Information

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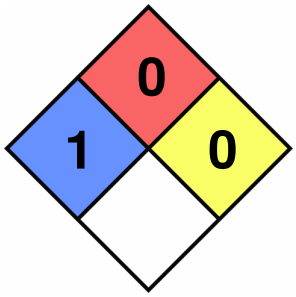
16.1 National Fire Protection Associate (NFPA) Rating

Health:	1
Flammability:	0
Reactivity	0
Special Hazard:	



16.2 Document Revision

Last Revision Date:
2026-05-05

DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.