

## Safety Data Sheet

Classified according to WHMIS 2015

### SECTION 1: Identification

#### 1.1. Product Identifier

**Trade Name or Designation:** Alkaline Potassium Tetraiodomercurate R

**Product Number:** 6545

**Other Identifying Product Numbers:** 6545-16, 6545-4, 6545-8

#### 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:** 448 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

### SECTION 2: Hazard(s) Identification

#### 2.1. Classification of the Substance or Mixture

For the full text of the Hazard and Precautionary Statements listed below, see Section 16.

Hazard Class	Category	Hazard Statements	Precautionary Statements:
Skin Corrosion / Irritation	Category 1	H314	P260, P264, P280, P301+P330+P331, P303+P361+P353, P363, P304+P340, P310, P321, P305+P351+P338, P405, P501
Eye Damage / Irritation	Category 1	H318	P280, P305+P351+P338, P310
Specific Target Organs/Systemic Toxicity Following Repeated Exposure	Category 1	H372	P260, P264, P270, P314, P501
Hazardous to the Aquatic Environment (Acute)	Category 2	H401	P273, P501
Hazardous to the Aquatic Environment (Chronic)	Category 2	H411	P273, P391, P501

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## 2.2. GHS Label Elements

Pictograms:



Signal Word: **Danger**

Hazard Statements:

Hazard Number	Hazard Statement
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H372	Causes damage to organs through prolonged or repeated exposure.
H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Precautionary Statements:

Precautionary Number	Precautionary Statement
P260	Do not breathe fumes, mist, vapors, or spray.
P264	Wash arms, hands and face thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves and eye protection.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or physician.
P314	Get medical attention if you feel unwell.
P321	Specific treatment (Wash areas of contact with water immediately).
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
P405	Store locked up.
P501	Dispose of contents in accordance with local, state, federal and international regulations.

## 2.4. Hazards not Otherwise Classified or Covered by GHS

Data not available.

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## SECTION 3: Composition / Information on Ingredients

### 3.1. Components of Substance or Mixture

Chemical Name	Formula	Molecular Weight	CAS Number	Weight%
Water	H <sub>2</sub> O	18.01 g/mol	7732-18-5	80.68
Sodium Hydroxide	NaOH	39.99 g/mol	1310-73-2	9.47
Mercuric Iodide	HgI <sub>2</sub>	454.39 g/mol	7774-29-0	5.68
Potassium Iodide	KI	166.00 g/mol	7681-11-0	4.17

## SECTION 4: First-Aid Measures

### 4.1. General First Aid Information

**Eye Contact:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Irritant, possibly corrosive to eye tissue. Symptoms include tearing, redness, pain, and impaired vision.

**Inhalation:** IF INHALED: Remove person to fresh air and keep comfortable for breathing.

**Skin Contact:** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. May irritate damaged skin, absorption can occur with effects similar to those via ingestion.

**Ingestion:** IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Dilute with water or milk. Vomiting may occur spontaneously but do not induce. Call a physician immediately.

### 4.2. Most Important Symptoms and Effects, Acute and Delayed

Causes severe skin burns and eye damage. Causes serious eye damage. Causes damage to organs through prolonged or repeated exposure. DANGER! Corrosive and Toxic! Causes severe burns. May be fatal if swallowed. Do not get in eyes, on skin or clothing. If ingested, do not induce vomiting. Give large quantity of water and call a physician. Wash areas of contact with plenty of water for 15 minutes. For eyes, get medical attention. EYE CONTACT: Irritant, possibly corrosive to eye tissue. Symptoms include tearing, redness, pain, and impaired vision. SKIN CONTACT: May irritate damaged skin, absorption can occur with effects similar to those via ingestion. CHRONIC EFFECTS / CARCINOGENICITY: Chronic exposure can lead to central nervous system damage.

### 4.3. Medical Attention or Special Treatment Needed

Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water immediately). 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. Wash areas of contact with soap and water for at least 15 minutes. Call a physician if irritation develops. Dilute with water or milk. Vomiting may occur spontaneously but do not induce. Call a physician immediately.



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### SECTION 5: Fire-Fighting Measures

#### 5.1. Extinguishing Media

Use any means suitable for extinguishing surrounding fire. Dry chemical or foam may suffice for small fires. For large fires, try fog or regular foam. Exercise caution if water is used (it may increase contamination of area).

#### 5.2. Specific Hazards Arising from the Substance or Mixture

Not considered to be a fire or explosion hazard.

#### 5.3. Special Protective Equipment 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 protective gloves and eye protection.

#### 6.2. Cleanup and Containment Methods and Materials

Wear gloves to protect from absorption through skin. Absorb with suitable material and containerize for proper disposal. Do not flush to sewer. Sprinkle area with Sulfur to suppress Mercury.

### SECTION 7: Handling and Storage

#### 7.1. Precautions for Safe Handling and Storage Conditions

Store locked up. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. Store away from direct sunlight.

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### SECTION 8: Exposure Controls / Personal Protection

#### 8.1 Control Parameters

Chemical Name	Limit Type	Country	Exposure Limit	Information Source
Sodium Hydroxide (1310-73-2)	TWA	USA	2 mg/m <sup>3</sup> TWA	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Sodium Hydroxide (1310-73-2)	TLV-Ceiling	USA	2 mg/m <sup>3</sup> Ceiling	ACGIH - Threshold Limit Values - Ceilings (TLV-C)
Potassium Iodide (7681-11-0)	TLV-TWA	USA	"0.01 mg/m <sup>3</sup> TWA (inhalable particulate matter, as I)" As Iodides [RR-42509-2]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Potassium Iodide (7681-11-0)	TLV-TWA	USA	0.01 mg/m <sup>3</sup> TWA (inhalable particulate matter, as I)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Mercuric Iodide (7774-29-0)	TLV-TWA	USA	"0.025 mg/m <sup>3</sup> TWA (as Hg)" As Mercury inorganic forms [RR-00569-6]; "0.01 mg/m <sup>3</sup> TWA (inhalable particulate matter, as I)" As Iodides [RR-42509-2]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Mercuric Iodide (7774-29-0)	TLV-TWA	USA	0.025 mg/m <sup>3</sup> TWA (as Hg)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Mercuric Iodide (7774-29-0)	TLV-TWA	USA	"0.025 mg/m <sup>3</sup> TWA (as Hg)" As Mercury inorganic forms [RR-00569-6]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Mercuric Iodide (7774-29-0)	TLV-TWA	USA	"0.025 mg/m <sup>3</sup> TWA (as Hg)" As Mercury inorganic forms [RR-00569-6]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Mercuric Iodide (7774-29-0)	TLV-TWA	USA	0.01 mg/m <sup>3</sup> TWA (inhalable particulate matter, as I)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

#### 8.2. Exposure Controls

**Engineering Controls:** No specific controls are needed. Normal room ventilation is adequate.

**Respiratory Protection:** Normal room ventilation is adequate.

**Skin Protection:** Wear protective gloves and eye protection. Chemical resistant gloves.

**Eye Protection:** Wear protective gloves and eye protection. Safety glasses or goggles.



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### 8.3. Personal Protective Equipment

Wear protective gloves and eye protection. Normal room ventilation is adequate. Chemical resistant gloves. Safety glasses or goggles.

## SECTION 9: Physical and Chemical Properties

### 9.1. Basic Physical and Chemical Properties

**Appearance:** Pale yellow liquid

**Physical State:** Liquid

**Odor:** Data not available.

**Odor Threshold:** Data not available.

**pH:** Data not available.

**Melting/Freezing Point:** Data not available.

**Initial Boiling Point/Range:** Approximately 102°C - Approximately 102°C

**Flash Point:** Data not available.

**Evaporation Rate:** Data not available.

**Flammability:** Data not available.

**Flammability/Explosive Limits:** Data not available.

**Vapor Pressure:** Data not available.

**Vapor Density:** Data not available.

**Relative Density:** 1.32

**Solubility:** Miscible

**Partition Coefficient:** Data not available.

**Auto-Ignition Temperature:** Data not available.

**Decomposition Temperature:** Data not available.

**Viscosity:** Data not available.

**Explosive Properties:** Data not available.

**Oxidizing Properties:** 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.

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### 10.3. Conditions to Avoid and Incompatible Materials

Formates, Sulfites, Phosphates, Albumin, Ammonia, Gelatin, Carbonates, Hypophosphites, Sulfides, Alkalis, Alkaloid salts, Lime water, Strong acids, chlorinated Hydrocarbons, Acetone, metals such as aluminum, tin and zinc.

### 10.4. Hazardous Decomposition Products

Will not occur.

## SECTION 11: Toxicological Information

### 11.1. Information on Toxicological Effects

#### Acute Toxicity - Oral Exposure:

Not applicable.

#### Acute Toxicity - Dermal Exposure:

Not applicable.

#### Acute Toxicity - Inhalation Exposure:

Not applicable.

#### Acute Toxicity - Other Information:

LD50, Oral, Rat: 18 mg/kg (Mercuric Iodide); LD50, Dermal, Rat: 75 mg/kg (Mercuric Iodide), details of toxic effects not reported other than lethal dose value.

#### Skin Corrosion and Irritation:

Causes severe skin burns and eye damage. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water immediately). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

#### Serious Eye Damage and Irritation:

Causes serious eye damage. Wear protective gloves and eye protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

#### Respiratory Sensitization:

Not applicable.

#### Skin Sensitization:

Not applicable.

#### Germ Cell Mutagenicity:

Not applicable.

#### Carcinogenicity:

Not applicable.

#### Reproductive Toxicity:

Not applicable.



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**Specific Target Organ Toxicity from Single Exposure:**

Not applicable.

**Specific Target Organ Toxicity from Repeated Exposure:**

Causes damage to organs through prolonged or repeated exposure. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Get medical attention if you feel unwell. Dispose of contents in accordance with local, state, federal and international regulations.

**Aspiration Hazard:**

Not applicable.

**Additional Toxicology Information:**

Data not available.

### SECTION 12: Ecological Information

**12.1. Ecotoxicity**

Toxic to aquatic life. Avoid release to the environment. Dispose of contents in accordance with local, state, federal and international regulations. Toxic to aquatic life with long lasting effects. Avoid release to the environment. Collect spillage. Dispose of contents in accordance with local, state, federal and international regulations.

**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.





## Safety Data Sheet

### SECTION 14: Transportation Information

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

**Sizes:** 120 mL, 250 mL, 500 mL

**UN Number:** UN2922

**Proper Shipping Name:** Corrosive Liquid, Toxic, n.o.s. (Sodium Hydroxide, Mercuric Iodide)

**Hazard Class:** 8 (6.1)

**Packing Group:** II

**Hazard Label(s):**



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

**Sizes:** 120 mL, 250 mL, 500 mL

**UN Number:** UN2922

**Proper Shipping Name:** Corrosive Liquid, Toxic, n.o.s. (Sodium Hydroxide, Mercuric Iodide)

**Hazard Class:** 8 (6.1)

**Packing Group:** II

**Hazard Label(s):**



#### 14.3 Transportation of Dangerous Goods (TDG, Canada)

**Sizes:** 120 mL, 250 mL, 500 mL

**UN Number:** UN2922

**Proper Shipping Name:** CORROSIVE LIQUID, TOXIC, N.O.S. (sodium hydroxide, mercuric iodide)

**Hazard Class:** 8 (6.1)

**Packing Group:** II

**Hazard Label(s):**



## Safety Data Sheet

### SECTION 15: Regulatory Information

#### 15.1. Occupational Safety and Health Administration (OSHA) Hazards

Not listed.

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

Not listed.

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

Sodium Hydroxide (CAS # 1310-73-2): 1000 lb final RQ; 454 kg final RQ

#### 15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

Mercuric Iodide (CAS # 7774-29-0): "1.0 % Supplier notification limit (includes any unique chemical substance that contains Mercury as part of that chemical's infrastructure, listed under Chemical Category N458)" As Mercury compounds [RR-00138-7]

Mercuric Iodide (CAS # 7774-29-0): "10 lb RT" As Mercury compounds [RR-00138-7]

Mercuric Iodide (CAS # 7774-29-0): 1.0 % Supplier notification limit (includes any unique chemical substance that contains Mercury as part of that chemical's infrastructure, listed under Chemical Category N458)

Mercuric Iodide (CAS # 7774-29-0): 10 lb RT

#### 15.5. Massachusetts Right-to-Know Substance List

Sodium Hydroxide (CAS # 1310-73-2): Present

#### 15.6. Pennsylvania Right-to-Know Hazardous Substances

Sodium Hydroxide (CAS # 1310-73-2): Environmental hazard

Sodium Hydroxide (CAS # 1310-73-2): Present

Water (CAS # 7732-18-5): "Present" As Ethyl alcohol and water [RR-00802-6]

Water (CAS # 7732-18-5): Present

Mercuric Iodide (CAS # 7774-29-0): "Environmental hazard" As Mercury compounds [RR-00138-7];

"Environmental hazard" As Mercury inorganic compounds [RR-00569-6]

Mercuric Iodide (CAS # 7774-29-0): "Present" As Mercury compounds [RR-00138-7];

"Present" As Mercury inorganic compounds [RR-00569-6]

Mercuric Iodide (CAS # 7774-29-0): Environmental hazard

Mercuric Iodide (CAS # 7774-29-0): Present

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### 15.7. New Jersey Worker and Community Right-to-Know Components

Sodium Hydroxide (CAS # 1310-73-2): corrosive

Sodium Hydroxide (CAS # 1310-73-2): sn 1706

Mercuric Iodide (CAS # 7774-29-0): "corrosive" As Mercury inorganic compounds [RR-00569-6]

Mercuric Iodide (CAS # 7774-29-0): "sn 1183" As Mercury inorganic compounds [RR-00569-6]

Mercuric Iodide (CAS # 7774-29-0): "SN 2414 500 lb TPQ (Category Code N458. Includes any unique chemical substance that contains the named metal as part of that chemical structure)" As Mercury compounds [RR-00138-7]

Mercuric Iodide (CAS # 7774-29-0): corrosive

Mercuric Iodide (CAS # 7774-29-0): sn 1172

Mercuric Iodide (CAS # 7774-29-0): sn 1183

Mercuric Iodide (CAS # 7774-29-0): SN 2414 500 lb TPQ (Category Code N458. Includes any unique chemical substance that contains the named metal as part of that chemical structure)

### 15.8. California Proposition 65

Mercuric Iodide (CAS # 7774-29-0): "developmental toxicity, 7/1/1990" As Mercury compounds [RR-00138-7]

Mercuric Iodide (CAS # 7774-29-0): developmental toxicity, 7/1/1990

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

Sodium Hydroxide (CAS # 1310-73-2): Present (DSL)

Potassium Iodide (CAS # 7681-11-0): Present (DSL)

Water (CAS # 7732-18-5): Present (DSL)

Mercuric Iodide (CAS # 7774-29-0): Present (DSL)

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

**All components of this solution are listed as active on the TSCA Inventory or are mixtures (hydrates) of active items listed on the TSCA Inventory.**

Sodium Hydroxide (CAS # 1310-73-2): Present (ACTIVE)

Potassium Iodide (CAS # 7681-11-0): Present (ACTIVE)

Water (CAS # 7732-18-5): Present (ACTIVE)

Mercuric Iodide (CAS # 7774-29-0): Present (ACTIVE)

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

Sodium Hydroxide (CAS # 1310-73-2): 215-185-5

Potassium Iodide (CAS # 7681-11-0): 231-659-4

Water (CAS # 7732-18-5): 231-791-2

Mercuric Iodide (CAS # 7774-29-0): 231-873-8

# Safety Data Sheet

## SECTION 16: Other Information

### 16.1. Full Text of Hazard Statements and Precautionary Statements

Causes severe skin burns and eye damage. Causes damage to organs through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects.

Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves and eye protection.

IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician. Get medical attention if you feel unwell. Specific treatment (Wash areas of contact with water immediately). Wash contaminated clothing before reuse. Collect spillage.

Store locked up.

Dispose of contents in accordance with local, state, federal and international regulations.

### 16.2. Miscellaneous Hazard Classes

**Canadian Carcinogenicity Hazard Class:** Not Applicable.

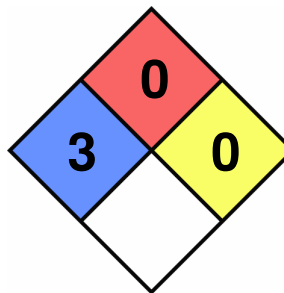
**Physical Hazards Not Otherwise Classified (PHNOC):** Not Applicable.

**Health Hazards Not Otherwise Classified (HHNOC):** Not Applicable.

**Biohazardous Infectious Materials Hazard Class:** Not Applicable.

### 16.3. National Fire Protection Association (NFPA) Rating

**Health:** 3  
**Flammability:** 0  
**Reactivity:** 0  
**Special Hazard:**



### 16.4. Document Revision

**Last Revision Date:** 2023-09-11

## 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.