

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Ammonia nitrogen Reagent R1
Supplier: Shenzhen Sinsche Technology Co., Ltd.

ADD: 4/F , T3 Building, Silicon Valley Compound, Qingquan Road, Longhua Street, Longhua District, Shenzhen

City, P.RC 518109.

Tel: +86 (755) 82127315 Fax: +86 (755) 82127860

Email:Sinsche@sinsche.com

Emergency telephone+86 (755) 82127315 (Mon-Fri 08:30- 18:00)

Chemical Name: Not applicable

CAS No.: Not applicable

Chemical Formula: Not applicable **Chemical Family:** Not applicable

PIN: NA

Intended Use: Laboratory Reagent Determination of ammonium nitrogen

Date of MSDS Preparation:

Day: 18
Month: June
Year: 2020

2. COMPOSITION / INFORMATION ON INGREDIENTS

Classification

Regulatory Status

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Hazard statements

The product contains no substances which at their given concentration, are considered to be hazardous to health

Other Information

May be harmful if swallowed



3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance

Not applicable.

Mixture

Chemical Family Mixture.

Name	EC No.	CAS-No.	Content
Potassium sodium tartrate, Tetrahydrat	206-156-8	6381-59-5	<50%
Demineralized	231-791-2	7732-18-5	>60%
Water			

4. FIRST AID MEASURE

Eye Contact: Immediately flush eyes with water for 15 minutes. Call physician.

Skin Contact (First Aid): Wash skin with soap and plenty of water.

Ingestion (First Aid): Give large quantities of water. Call physician immediately.

Inhalation: None required.

5. FIRE FIGHTING MEASURES

Flammable Properties: Material will not burn.

Flash Point: Not applicable

Method: Not applicable

Flammability Limits:

Lower Explosion Limits: Not applicable
Upper Explosion Limits: Not applicable
Autoignition Temperature: Not applicable
Hazardous Combustion Products: Not applicable

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Fire / Explosion Hazards: None reported

Static Discharge: None reported.

Mechanical Impact: None reported

Extinguishing Media: Use media appropriate to surrounding fire conditions

Fire Fighting Instruction: As in any fire, wear self-contained breathing apparatus pressure-demand and full

protective gear.

6. ACCIDENTAL RELEASE MEASURES

Spill Response Notice:

Only persons properly qualified to respond to an emergency involving hazardous substances should respond to a spill involving chemicals. See Section 13, Special Instructions for disposal assistance.

Containment Technique: Stop spilled material from being released to the environment.

Clean-up Technique: Absorb spilled liquid with non-reactive sorbent material. Sweep up material. Place material in a plastic bag. Mark bag 'Non-hazardous trash', and dispose of as normal refuse. Decontaminate the area of the spill with a soap solution.

Evacuation Procedure: Evacuate as needed to perform spill clean-up. If conditions warrant, increase the size of the evacuation.



D.O.T. Emergency Response Guide Number: None

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes Wash thoroughly after handling. Maintain general industrial hygiene practices

when using this product.

Storage: Keep container tightly closed when not in use. Avoid contamination by organic materials.

8. EXPOSURE CONTROLS / PROTECTIVE EQUIPMENT

Engineering Controls: Maintain general industrial hygiene practices when using this product.

Personal Protective Equipment:

Eye Protection: safety glasses with top and side shields

Skin Protection: lab coat

Inhalation Protection: adequate ventilation

Precautionary Measures: Avoid contact with: eyes Wash thoroughly after handling.

TLV: Not established **PEL:** Not established

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, colorless liquid

Physical State: Liquid

Molecular Weight: Not applicable

Odor: None

pH: Not determined

Vapor Pressure: Not determined

Vapor Density (air = 1): Not determined

Boiling Point: 98°C (208.4°F) **Melting Point:** -8°C (17.6°F)

Specific Gravity/ Relative Density (water = 1; air =1): 1.290

Evaporation Rate (water = 1): 0.65

Volatile Organic Compounds Content: Not applicable

Coefficient of Water / Oil: Not applicable

Solubility:
Water: Soluble
Acid: Soluble

Other: Not determined Metal Corrosivity:
Steel: 0.001 in/yr
Aluminum: 0.016 in/yr

10. STABILITY AND REACTIVITY

Chemical Stability: Stable when stored under proper conditions.

Conditions to Avoid: Evaporation Extreme temperatures

Reactivity / Incompatibility: None reported

Hazardous Decomposition: Toxic fumes of: sodium oxides potassium oxide



Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Product Toxicological Data:

LD50: None reported LC50: None reported

Dermal Toxicity Data: None reported

Skin and Eye Irritation Data: None reported

Mutation Data: None reported

Reproductive Effects Data: None reported

Ingredient Toxicological Data: Sodium Citrate: Oral rat LD50 > 8 g/kg

12. ECOLOGICAL INFORMATION

Product Ecological Information: No information available for this product

Ingredient Ecological Information: None reported

13. DISPOSAL CONSIDERATIONS

Special Instructions (Disposal): Dilute to 3 to 5 times the volume with cold water. Open cold water tap completely, slowly pour the material to the drain.

Empty Containers: Rinse three times with an appropriate solvent. Dispose of empty container as normal trash. **NOTICE (Disposal):** These disposal guidelines are based on federal regulations and may be superseded by more stringent state or local requirements. Please consult your local environmental regulators for more information.

14. TRANSPORT INFORMATION

T.D.G.:

Proper Shipping Name: Not Currently Regulated

Hazard Class: NA

PIN: NA Group: NA

Subsidiary Risk: NA

Additional Information: There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is NOT in a set or kit, the classification given above applies. If the item IS part of a set or kit, the classification would change to the following: UN3316 Chemical Kit, Class 9, PG II or III. If the itemis not regulated, the Chemical Kit classification does not apply.

15. REGULATORY INFORMATION

National Inventories:

Canadian Inventory Status: All ingredients of this product are DSL Listed.

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

16. OTHER INFORMATION

References: 29 CFR 1900 - 1910 (Code of Federal Regulations - Labor). Air Contaminants, Federal Register, Vol. 54,No. 12. Thursday, January 19, 1989. pp. 2332-2983. TLV's Threshold Limit Values and Biological Exposure



Indices for 1992-1993. American Conference of Governmental Industrial Hygienists, 1992. Technical Judgment. In-house information.

Legend:

NA - Not Applicable w/w - weight/weight

ND - Not Determined w/v - weight/volume

NV - Not Available v/v - volume/volume

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE.

HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Ammonia nitrogen Reagent R2Supplier: Shenzhen Sinsche Technology Co.,Ltd.

ADD: 4/F , T3 Building, Silicon Valley Compound, Qingquan Road, Longhua Street, Longhua District, Shenzhen

City, P.RC 518109.

Tel: +86 (755) 82127315 Fax: +86 (755) 82127860

Email:Sinsche@sinsche.com

Emergency telephone+86 (755) 82127315 (Mon-Fri 08:30- 18:00)

Chemical Name: Not applicable

CAS No.: Not applicable

Chemical Formula: Not applicable **Chemical Family:** Not applicable

PIN: NA

Intended Use: Laboratory Reagent Determination of ammonium nitrogen

Date of MSDS Preparation:

Day: 18
Month: June
Year: 2020

2. HAZARDS IDENTIFICATION

CHS Classification

Most Important Hazards

According to ABNT NBR 14725-2

Corrosive to metals	Category 1 - (H290)
Acute toxicity - Oral	Category 3 - (H301)
Acute toxicity - Dermal	Category 2 - (H310)
Acute toxicity - Inhalation (Dusts/Mists)	Category 3 - (H331)
Skin corrosion/irritation	Category 1 - (H314)
Serious eye damage/eye irritation	Category 1 - (H318)
Specific target organ toxicity (repeated exposure)	Category 2 - (H373)
Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)

Label elements

Signal word - Danger





Corrosion

Skull and crossbones

Health hazard

Environment **Hazard statements**

- H290 May be corrosive to metals
- H301 Toxic if swallowed
- H310 Fatal in contact with skin
- H314 Causes severe skin burns and eye damage
- H331 Toxic if inhaled
- H373 May cause damage to organs through prolonged or repeated exposure
- H410 Very toxic to aquatic life with long lasting effects

Precautionary statements

- P260 Do not breathe dust/fume/gas/mist/vapors/spray
- P264 Wash face, hands and any exposed skin thoroughly after handling
- P280 Wear protective gloves/protective clothing/eye protection/face protection
- P234 Keep only in original container
- P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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
- P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- P363 Wash contaminated clothing before reuse



P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting

P310 - Immediately call a POISON CENTER or doctor/physician

P390 - Absorb spillage to prevent material damage

P405 - Store locked up

P406 - Store in corrosive resistant stainless steel container with a resistant inliner

P501 - Dispose of contents/ container to an approved waste disposal plant

Other Hazards Known

Not applicable

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance

Not applicable.

Mixture

Chemical Family

Mixture.

Name	EC No.	CAS-No.	Content
Potassium Iodide	231-659-4	7681-11-0	<10%
MERCURIC IODIDE	231-873-8	7774-29-0	<10%
Sodium hydroxide	215-185-5	1310-73-2	<20%
Demineralized	231-791-2	7732-18-5	>60%
Water			

4. FIRST AID MEASURES

Eye Contact: Immediately flush eyes with water for 15 minutes. Call physician.

Skin Contact (First Aid): Wash skin with plenty of water for 15 minutes. Call physician immediately.

Ingestion (First Aid): Do not induce vomiting. Give 1-2 glasses of water. Call physician immediately. Never give

anything by mouth to an unconscious person.

Inhalation: Remove to fresh air.

5. FIRE FIGHTING MEASURES

Flammable Properties: During a fire, irritating and highly toxic gases may be generated by thermal

decomposition.

Flash Point: Not applicable

Method: Not applicable

Flammability Limits:

Lower Explosion Limits: Not applicable
Upper Explosion Limits: Not applicable
Autoignition Temperature: Not available

Hazardous Combustion Products: Toxic fumes of: mercury sodium oxides iodine compounds

Fire / Explosion Hazards: None reported

Static Discharge: None reported.

Mechanical Impact: None reported

Extinguishing Media: Use media appropriate to surrounding fire conditions



Fire Fighting Instruction: As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear. Water runoff can cause environmental damage. Dike and collect water used to fight fire.

6. ACCIDENTAL RELEASE MEASURES

Spill Response Notice:

Only persons properly qualified to respond to an emergency involving hazardous substances should respond to a spill involving chemicals. See Section 13, Special Instructions for disposal assistance.

Containment Technique: Releases of this material may contaminate the environment. Stop spilled material from being released to the environment. Cover spilled solid material with sand or other inert material.

Clean-up Technique: Mercury and its compounds are extremely toxic! Avoid breathing spilled material. Avoid contact with spilled material. Absorb spilled liquid with non-reactive sorbent material. Sweep up material. Dispose of all mercury contaminated material at a government approved hazardous waste facility. Dispose of material in government approved hazardous waste facility. Decontaminate area with commercially available mercury absorbing compounds.

Evacuation Procedure: Evacuate general area (50 foot radius or as directed by your facility's emergency response plan)when: any quantity is spilled. If conditions warrant, increase the size of the evacuation.

D.O.T. Emergency Response Guide Number: 154

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes skin clothing Do not breathe mist or vapors. Wash thoroughly after handling. Maintain general industrial hygiene practices when using this product.

Storage: Keep away from: acids organic material ammonia Protect from: light heat freezing

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Maintain adequate ventilation to keep vapor level below TWA for chemicals in this product. Maintain general industrial hygiene practices when using this product. Use a fume hood to avoid exposure to dust, mist or vapor.

Personal Protective Equipment:

Eye Protection: chemical splash goggles

Skin Protection: neoprene latex gloves In the EU, the selected gloves must satisfy the specifications of EU

Directive 89/686/EEC and standard EN 374 derived from it. lab coat

Inhalation Protection: laboratory fume hood

Precautionary Measures: Avoid contact with: eyes skin clothing Do not breathe: mist/vapor Wash thoroughly after handling. Protect from: light heat freezing Keep away from: acids/acid fumes ammonia organic materials

TLV: Not established **PEL:** Not established

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, yellow liquid

Physical State: Liquid

Molecular Weight: Not applicable

Odor: Not determined

pH: ≥11

Vapor Pressure: Not available



Vapor Density (air = 1): Not available

Boiling Point: 110 C decomposes

Melting Point: Not available

Specific Gravity/ Relative Density (water = 1; air =1): 1.265

Evaporation Rate (water = 1): Not determined

Volatile Organic Compounds Content: Not applicable

Coefficient of Water / Oil: Not applicable

Solubility:

Water: Miscible

Acid: Not determined
Other: Not determined
Metal Corrosivity:
Steel: Not determined
Aluminum: Not determined

10. STABILITY AND REACTIVITY

Chemical Stability: Stable when stored under proper conditions.

Conditions to Avoid: Exposure to light or contamination by organic materials will affect this product's stability.

Extreme temperatures

Reactivity / Incompatibility: Incompatible with: acids oxidizers organic materials ammonia

Hazardous Decomposition: Toxic fumes of: mercury iodine compounds

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Product Toxicological Data:

LD50: None reported LC50: None reported

Dermal Toxicity Data: Mercuric Iodide Skin rat LD50 = 75 mg/kg

Skin and Eye Irritation Data: None reported

Mutation Data: None reported

Reproductive Effects Data: Mercuric Iodide Inhalation rat TCLo = $4870 \text{ ng/m}_3/24\text{H}$ - female 1-22 days after conception- post-implantation mortality Mercuric Iodide Inhalation rat TCLo = $450 \text{ ng/m}_3/24\text{H}$ - female 1-22 days after conception - embryo or fetus - extra embryonic structures, fetotoxicity

Ingredient Toxicological Data: Mercuric Iodide Oral rat LD50 = 18 mg/kg; Sodium Hydroxide Oral rat LDLo =

500mg/kg; Sodium Iodide Oral rat LD50 = 4340 mg/kg

12. ECOLOGICAL INFORMATION

Product Ecological Information: --

No ecological data available for this product. Mobility in soil: No data available

Ingredient Ecological Information: --

No ecological data available for the ingredients of this product.

13. DISPOSAL CONSIDERATIONS



Special Instructions (Disposal): Decontaminate any equipment or surfaces that have come in contact with mercury with commercially available mercury absorbing compounds. Dispose of all mercury contaminated material at an E.P.A. hazardous waste facility. Dispose of material in an E.P.A. approved hazardous waste facility. Empty Containers: Rinse three times with an appropriate solvent. Dispose of empty container as normal trash. Rinsate from empty containers may contain sufficient product to require disposal as hazardous waste.

NOTICE (Disposal): These disposal guidelines are based on federal regulations and may be superseded by more stringent state or local requirements. Please consult your local environmental regulators for more information.

14. TRANSPORT INFORMATION

T.D.G.:

Proper Shipping Name: Corrosive Liquid, Toxic, N.O.S.

(Mercuric Iodide/Sodium Hydroxide Solution)

Hazard Class: 8

UN Number/PIN: 2922

Packing Group: ||
Subsidiary Risk: 6.1

Additional Information: There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is NOT in a set or kit, the classification given above applies. If the item IS part of a set or kit, the classification would change to the following: UN3316 Chemical Kit, Class 9, PG II or III. If the item is not regulated, the Chemical Kit classification does not apply.

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