



## MATERIAL SAFETY DATA SHEET

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Sulfide Reagent S1

**Supplier:** Shenzhen Sinsche Technology Co.,Ltd.

ADD: 4/F, T3 Building, Silicon Valley Compound, Qingquan Road, Longhua Street, Longhua District, Shenzhen City, P.R.C 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:** 22

**Month:** June

**Year:** 2020

### 2 -COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content
Sodium chloride	231-760-3	7647-14-5	>90%
N,N-Diethyl-p-phenylene diamine	228-500-6	6283-63-2	<10%

Hazard Symbols: XN

Risk Phrases: 21/22

### Section 3 - HAZARDS IDENTIFICATION

**CHS Classification**

**Most Important Hazards**

**According to ABNT NBR 14725-2**

Acute toxicity (oral, dermal, inhalation)	Category 4
Serious eye damage/eye irritation	Category 2
Skin sensitisation,	category 1
Specific Target Organ Toxicity – Single exposure	category 3



Hazard statements

H315-Causes skin irritation

H319-Causes serious eye irritation

Precautionary statement

P280- Wear protective gloves/protective clothing/eye protection/face protection

P302+P352-IF ON SKIN:Wash with plenty of water and soap

P332+P313-If skin irritation occurs: Get medical advice/attention

P362+P364-Take off all contaminated clothing and wash it before reuse

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

**Other Hazards Known**

Not applicable

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**Section 4 - FIRST AID MEASURES**

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

Skin:

In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

Ingestion:

If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Treat symptomatically and supportively.

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**Section 5 - FIRE FIGHTING MEASURES**

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media:



# Shenzhen Sinsche Technology Co.,Ltd

Use water spray, dry chemical, carbon dioxide, or appropriate foam.

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## Section 6 - ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions.

Provide ventilation.

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## Section 7 - HANDLING and STORAGE

Handling:

Wash thoroughly after handling. Use with adequate ventilation.

Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

Storage:

Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

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## Section 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits CAS# 6283-63-2: Personal Protective Equipment Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

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## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Powder

Color: white

Odor: Not available.

pH: Not available.

Vapor Pressure: Not available.

Viscosity: Not available.

Boiling Point: Not available.



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Freezing/Melting Point: Not available.

Autoignition Temperature: Not available.

Flash Point: Not available.

Explosion Limits, lower: Not available.

Explosion Limits, upper: Not available.

Decomposition Temperature:

Solubility in water:

Specific Gravity/Density:

Molecular Formula: Not available.

Molecular Weight: Not available.

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## Section 10 - STABILITY AND REACTIVITY

Chemical Stability:

Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid:

Dust generation.

Incompatibilities with Other Materials:

Strong oxidizing agents.

Hazardous Decomposition Products:

Nitrogen oxides, carbon monoxide, oxides of sulfur, carbon dioxide.

Hazardous Polymerization: Has not been reported

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## Section 11 - TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 6283-63-2: SS9625000 LD50/LC50:

CAS# 6283-63-2: Draize test, rabbit, eye: 500 mg/24H Mild.

Carcinogenicity:

N,N-Diethyl-p-phenylene diamine - Not listed by ACGIH, IARC, or NTP.

Other:

See actual entry in RTECS for complete information.

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## Section 12 - ECOLOGICAL INFORMATION

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### Section 13 - DISPOSAL CONSIDERATIONS

Products which are considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location. Contact a specialist disposal company or the local waste regulator for advice. Empty containers must be decontaminated before returning for recycling.

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### Section 14 - TRANSPORT INFORMATION

IATA

Shipping Name: TOXIC SOLID, ORGANIC N.O.S. (N,N-DIETHYL-P-PHENYLE NEDIAMINESULFATE)



# Shenzhen Sinsche Technology Co.,Ltd

Hazard Class: 6.1

UN Number: 2811

Packing Group: III

IMO

Shipping Name: TOXIC SOLID, ORGANIC N.O.S. (N,N-DIETHYL-P-PHENYLE NEDIAMINESULFATE)

Hazard Class: 6.1

UN Number: 2811

Packing Group: III

RID/ADR

Shipping Name: TOXIC SOLID, ORGANIC N.O.S. (N,N-DIETHYL-P-PHENYLE NEDIAMINESULFATE)

Hazard Class: 6.1

UN Number: 2811

Packing group: III

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## Section 15 - REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN

Risk Phrases:

R 21/22 Harmful in contact with skin and if swallowed.

Safety Phrases:

S 28 After contact with skin, wash immediately with...

S 44 If you feel unwell, seek medical advice (show the label where possible).

WGK (Water Danger/Protection)

CAS# 6283-63-2: No information available.

Canada

None of the chemicals in this product are listed on the DSL/NDSL list.

CAS# 6283-63-2 is not listed on Canada's Ingredient Disclosure List.

US FEDERAL

TSCA

CAS# 6283-63-2 is not listed on the TSCA inventory.

It is for research and development use only.

## 16 Other information

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version 1



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**DISCLAIMER**

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.



## MATERIAL SAFETY DATA SHEET

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Sulfide Reagent S2

**Supplier:** Shenzhen Sinsche Technology Co.,Ltd.

ADD: 4/F, T3 Building, Silicon Valley Compound, Qingquan Road, Longhua Street, Longhua District, Shenzhen City, P.R.C 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:** 22

**Month:** June

**Year:** 2020

### 2 -COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content
Ferric trichloride	231-729-4	7705-08-0	<10%
Sulfuric acid	231-639-5	7664-93-9	<25%
Demineralized Water	231-791-2	7732-18-5	>65%

Hazard Symbols: C

Risk Phrases: 35

### 3 HAZARDS IDENTIFICATION

**Emergency Overview**



Causes severe burns. Corrosive.

Potential Health Effects



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**Eye:**

Causes eye burns. May cause irreversible eye injury. The severity of injury depends on the concentration of the solution and the duration of exposure.

**Skin:**

Causes skin burns. The severity of injury depends on the concentration of the solution and the duration of exposure.

**Ingestion:**

May cause severe and permanent damage to the digestive tract. Causes gastrointestinal tract burns.

**Inhalation:**

Causes chemical burns to the respiratory tract. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Aspiration may lead to pulmonary edema. May cause systemic effects. Causes corrosive action on the mucous membranes.

**Chronic:**

Prolonged or repeated inhalation may cause nosebleeds, nasal congestion, erosion of the teeth, perforation of the nasal septum, chest pain and bronchitis. Prolonged or repeated eye contact may cause conjunctivitis. Effects may be delayed. Workers chronically exposed to sulfuric acid mists may show various lesions of the skin, tracheobronchitis, stomatitis, conjunctivitis, or gastritis.

Occupational exposure to strong inorganic acid mists containing sulfuric acid is carcinogenic to humans.

## 4 - FIRST AID MEASURES

**Eyes:** Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).

**Skin:**

Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated shoes.

**Ingestion:**

Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

**Inhalation:**

Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

**Notes to Physician:**

Monitor arterial blood gases, chest x-ray, and pulmonary function tests if respiratory tract irritation or respiratory depression is evident. Treat dermal irritation or burns with standard topical therapy. Effects may be delayed. Do NOT use sodium bicarbonate in an attempt to neutralize the acid.

Antidote: Do NOT use oils or ointments in eye

## 5 - FIRE FIGHTING MEASURES





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## General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Substance is noncombustible. Containers may explode in the heat of a fire. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Contact with metals may evolve flammable hydrogen gas.

## Extinguishing Media:

Use water spray to cool fire-exposed containers. Use carbon dioxide or dry chemical. Most foams will react with the material and release corrosive/toxic gases. Cool containers with flooding quantities of water until well after fire is out.

## 6 - ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated in Section 8.

### Spills/Leaks:

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

Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation. Cover with dry earth, dry sand, or other non-combustible material followed with plastic sheet to minimize spreading and contact with water.

## 7 - HANDLING and STORAGE

### Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale. Use only in a chemical fume hood. Discard contaminated shoes.

### Storage:

Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances. Corrosives area. Do not store near alkaline substances

## 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

### Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits CAS# 7664-93-9: United States OSHA: 1 mg/m<sup>3</sup> TWA Belgium - TWA: 1 mg/m<sup>3</sup> VLE Belgium - STEL: 3 mg/m<sup>3</sup> VLE France - VME: 1 mg/m<sup>3</sup> VME France - VLE: 3 mg/m<sup>3</sup> VLE Germany: 0.5 mg/m<sup>3</sup> TWA (inhalable fraction, battery manufacture, metal working in a close Japan: 1 mg/m<sup>3</sup> Ceiling Malaysia: 1 mg/m<sup>3</sup> TWA Netherlands: 1 mg/m<sup>3</sup> MAC Russia: 1 mg/m<sup>3</sup> TWA Spain: 1 mg/m<sup>3</sup> VLA-ED Spain: 3 mg/m<sup>3</sup> VLA-EC CAS# 7732-18-5: Personal Protective Equipment Eyes: Wear chemical splash goggles and face shield.

### Skin:

Wear neoprene gloves, apron, and/or clothing.

### Clothing:

Wear neoprene gloves, apron, and/or clothing.

### Respirators:

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions



warrant respirator use.

## 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Color: Yellow

Odor: none reported

pH: <1.0

Vapor Pressure: Not available.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: Not available.

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits, lower: Not available.

Explosion Limits, upper: Not available.

Decomposition Temperature: Not available.

Solubility in water: Not available.

Specific Gravity/Density: >1.0

Molecular Formula: Mixture

Molecular Weight: Not available

## 10 - STABILITY AND REACTIVITY

### Chemical Stability:

Stable under normal temperatures and pressures. Sulfuric acid reacts vigorously, violently or explosively with many organic and inorganic chemicals and with water.

Conditions to Avoid:

Mechanical shock, incompatible materials, metals, excess heat, combustible materials, organic materials, oxidizers, amines, bases.

### Incompatibilities with Other Materials:

Bases, metals, strong oxidizing agents, strong reducing agents, strong dehydrating agents, organic materials, finely powdered metals, carbides, chlorates, cyanides (e.g. potassium cyanide, sodium cyanide), azides, fulminates, picrates, nitrates, alkali halides, zinc, iodides, permanganates, hydrogen peroxide, perchlorates, nitromethane, phosphorus, nitrites, cyclopentadiene, cyclopentanone oxime, nitroaryl amines, lithium silicides, iron, mercuric nitride, benzene, potassium chlorates, steel, cesium acetylene carbide, trihydroxydiamino phosphate, phosphorus trioxide.

### Hazardous Decomposition Products:

Carbon monoxide, oxides of sulfur, carbon dioxide.

**Hazardous Polymerization:** Has not been reported

## 11 - TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 7664-93-9: WS5600000 CAS# 7732-18-5: ZC0110000 LD50/LC50:

CAS# 7664-93-9: Draize test, rabbit, eye: 250 ug Severe; Inhalation, mouse: LC50 = 320 mg/m<sup>3</sup>/2H; Inhalation, mouse: LC50 = 320 mg/m<sup>3</sup>; Inhalation, rat: LC50 = 510 mg/m<sup>3</sup>/2H; Inhalation, rat: LC50 = 510 mg/m<sup>3</sup>; Oral, rat: LD50 = 2140 mg/kg.

CAS# 7732-18-5: Oral, rat: LD50 = >90 mL/kg.



# Shenzhen Sinsche Technology Co.,Ltd

Not available.

Carcinogenicity:

Sulfuric acid - ACGIH: A2 - Suspected Human Carcinogen (contained in strong inorg California: carcinogen, initial date 3/14/03 (listed as Strong inorgan NTP: Known carcinogen (listed as Strong inorganic acid mists co IARC: Group 1 carcinogen Water - Not listed by ACGIH, IARC, or NTP.

Other:

See actual entry in RTECS for complete information.

## 12 - ECOLOGICAL INFORMATION

Ecotoxicity:

Fish: Bluegill/Sunfish: 49 mg/L; 48Hr; CAS# 7664-93-9: TLm (tap water @ 20C)Fish: Bluegill/Sunfish: 24.5 ppm; 48Hr; CAS# 7664-93-9: TLm (fresh water) Other For more information, see "HANDBOOK OF ENVIRONMENTAL FATE AND EXPOSURE DATA."

## 13 - DISPOSAL CONSIDERATIONS

Products which are considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location. Contact a specialist disposal company or the local waste regulator for advice. Empty containers must be decontaminated before returning for recycling

## 14 - TRANSPORT INFORMATION

IATA

Shipping Name: SULFURIC ACID

Hazard Class: 8

UN Number: 2796

Packing Group: II

IMO

Shipping Name: SULFURIC ACID

Hazard Class: 8

UN Number: 2796

Packing Group: II

RID/ADR

Shipping Name: SULFURIC ACID

Hazard Class: 8

UN Number: 2796

Packing group: II

USA RQ: CAS# 7664-93-9: 1000 lb final RQ; 454 kg final RQ

## 15 - REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: C

Risk Phrases:

R 35 Causes severe burns.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 30 Never add water to this product.



# Shenzhen Sinsche Technology Co.,Ltd

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 7664-93-9: 2

CAS# 7732-18-5: No information available.

Canada

CAS# 7664-93-9 is listed on Canada's DSL List.

CAS# 7732-18-5 is listed on Canada's DSL List.

CAS# 7664-93-9 is listed on Canada's Ingredient Disclosure List.

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.

US FEDERAL

TSCA

CAS# 7664-93-9 is listed on the TSCA inventory.

CAS# 7732-18-5 is listed on the TSCA inventory

## **16 Other information**

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### DISCLAIMER

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.