



Shenzhen Sinsche Technology Co.,Ltd

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Cadmium 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.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:Determination of cadmium

Date of MSDS Preparation:

Day: 21

Month: June

Year: 2020

2 -COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content
Thiourea	200-543-5	62-56-6	100%

Hazard Symbols: XN N

Risk Phrases: 22 40 63 51/53

➤ Section 3 - HAZARDS IDENTIFICATION

CHS Classification

Most Important Hazards

According to ABNT NBR 14725-2

Skin corrosion/irritation	Category 2- (315)
Serious eye damage/eye irritation	Category 2A- (H319)





Shenzhen Sinsche Technology Co.,Ltd

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

➤ **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, immediately flush skin with soap and plenty of water. Remove contaminated clothing and shoes. Get medical aid if symptoms occur. 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:

➤ **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. Water runoff can cause environmental damage. Dike and collect water used to fight fire. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Dusts may be an explosion hazard if mixed with air at critical proportions and in the



Shenzhen Sinsche Technology Co.,Ltd

presence of an ignition source.

Extinguishing Media:

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

➤ 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. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions.

Provide ventilation.

➤ Section 7 - HANDLING and STORAGE

Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Use only with adequate ventilation. Avoid breathing dust.

Storage:

Keep container closed when not in use. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

➤ 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# 62-56-6: Netherlands: 0.5 mg/m³ MAC Russia: 0.3 mg/m³ TWA 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.

➤ Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Crystals

Color: white

Odor: odorless

pH: Not available.

Vapor Pressure: 2.5 mm Hg @ 25 deg C

Viscosity: Not available.

Boiling Point: Decomposes.

Freezing/Melting Point: 176-178 deg C

Autoignition Temperature: 440 deg C (824.00 deg F)

Flash Point: Not available.

Explosion Limits, lower: Not available.

Explosion Limits, upper: Not available.

Decomposition Temperature: > 180 deg C

Solubility in water: Soluble.

Specific Gravity/Density: 1.405

Molecular Formula: CH₄N₂S

Molecular Weight: 76.12

➤ Section 10 - STABILITY AND REACTIVITY

Chemical Stability:

Stable under normal temperatures and pressures. Polymerization may occur upon heating.

Conditions to Avoid:

Mechanical shock, dust generation, excess heat.

Incompatibilities with Other Materials:

Oxidizing agents, strong acids, strong bases, acrolein, nitric acid, hydrogen peroxide, acrylaldehyde.

Hazardous Decomposition Products:

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

Hazardous Polymerization: May occur.

➤ Section 11 - TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 62-56-6: YU2800000 LD50/LC50:

CAS# 62-56-6: Draize test, rabbit, eye: 14%; Oral, rat: LD50 = 125 mg/kg.

Carcinogenicity:

Thiourea - California: carcinogen, initial date 1/1/88 NTP: Suspect carcinogen



Shenzhen Sinsche Technology Co.,Ltd

Other:

See actual entry in RTECS for complete information.

➤ Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity:

Fish: Fathead Minnow: LC50 > 600 mg/L; 96 Hr; Unspecified Bacteria: Phytobacterium phosphoreum: EC50 = 3400 mg/L; 15 min; Microtox test Water flea Daphnia: LC50 = 1.8 mg/L; Unspecified; Unspecified If released to water, thiourea will react with hydroxyl radicals in sunlit natural waters with an estimated half-life of 171 days.

Hydrolysis, volatilization, adsorption to sediments, and bioconcentration are not expected to be important aquatic fate processes. Thiourea appears to be generally resistant to aquatic biodegradation as demonstrated by various standard biodegradation tests.

Other Testicular toxicity of thiourea has been demonstrated in fish exposed to concentrations of 300 ppm.

➤ Section 13 - DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations.

➤ Section 14 - TRANSPORT INFORMATION

IATA

Shipping Name: TOXIC SOLID, ORGANIC, N.O.S.*

Hazard Class: 6.1

UN Number: 2811

Packing Group: III

IMO

Shipping Name: TOXIC SOLID, ORGANIC, N.O.S.

Hazard Class: 6.1

UN Number: 2811

Packing Group: III

RID/ADR

Shipping Name: TOXIC SOLID, ORGANIC, N.O.S.

Hazard Class: 6.1

UN Number: 2811

Packing group: III

USA RQ: CAS# 62-56-6: 10 lb final RQ; 4.54 kg final RQ

➤ Section 15 - REGULATORY INFORMATION



Shenzhen Sinsche Technology Co.,Ltd

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN N

Risk Phrases:

R 22 Harmful if swallowed.

R 40 Limited evidence of a carcinogenic effect.

R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 63 Possible risk of harm to the unborn child.

Safety Phrases:

S 36/37 Wear suitable protective clothing and gloves.

S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

WGK (Water Danger/Protection)

CAS# 62-56-6: 2

Canada

CAS# 62-56-6 is listed on Canada's DSL List.

CAS# 62-56-6 is listed on Canada's Ingredient Disclosure List.

US FEDERAL

TSCA

CAS# 62-56-6 is listed on the TSCA inventory.



Shenzhen Sinsche Technology Co.,Ltd

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Cadmium Reagent R2

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:Determination of cadmium

Date of MSDS Preparation:

Day: 21

Month: June

Year: 2020

2 -COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content
2-(5-Bromo-2-Pyridylazo)-5-(Diethylamino)Phenol	238-286-6	14337-53-2	0.001-0.01%
OP	231-659-4	7681-11-0	0.1—0.5%
Alcohol		64-17-5	1-5%
Sodium tetraborate anhydrous	215-540-4	1330-43-4	0.5—3%
Demineralized Water	231-791-2	7732-18-5	90—96%

Hazard Symbols: XN

Risk Phrases: 22 41

3 - HAZARDS IDENTIFICATION

CHS Classification

Most Important Hazards

According to ABNT NBR 14725-2

Acute toxicity - Oral	Category 4
Serious eye damage/eye irritation	Category 2A

Label elements

Signal word - Warning



Shenzhen Sinsche Technology Co.,Ltd

Hazard statements

H302 - Harmful if swallowed

H319 - Causes serious eye irritation



Precautionary statements

P270 - Do not eat, drink or smoke when using this product

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

P330 - Rinse mouth

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

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

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

4 - FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin:

Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.

Ingestion:

Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid. Wash mouth out with water.

Inhalation:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

Notes to Physician:

Antidote: None reported.



Shenzhen Sinsche Technology Co.,Ltd

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. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Runoff from fire control or dilution water may cause pollution.

Extinguishing Media:

Water or foam may cause frothing. Use water spray, dry chemical, carbon dioxide, or chemical foam.

6 - ACCIDENTAL RELEASE MEASURES

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

Spills/Leaks:

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

7 - HANDLING and STORAGE

Handling:

Wash thoroughly after handling. Avoid breathing dust, vapor, mist, or gas. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Use with adequate ventilation.

Storage:

Do not store in direct sunlight. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible 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 ventilation to keep airborne concentrations low.

Exposure Limits CAS# 9002-93-1: 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:



Shenzhen Sinsche Technology Co.,Ltd

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Viscous liquid

Color: red

Odor: Not available.

pH: Not available.

Vapor Pressure: Not available.

Viscosity: 240 cP 25 deg C

Boiling Point: 270 deg C @ 760.00m

Freezing/Melting Point: 6 deg C

Autoignition Temperature: Not available.

Flash Point: 274 deg C (525.20 deg F)

Explosion Limits, lower: Not available.

Explosion Limits, upper: Not available.

Decomposition Temperature:

Solubility in water: ethylene glycol, ethyl ether, ethyl alco

Specific Gravity/Density: Not available.

Molecular Formula:solution

Molecular Weight: Not available.

10 - STABILITY AND REACTIVITY

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Light, exposure to air, exposure to moist air or water.

Incompatibilities with Other Materials:

Strong oxidizing agents - strong reducing agents - high temperatures.

Hazardous Decomposition Products:

Carbon monoxide, carbon dioxide.

Hazardous Polymerization: Will not occur.

11 - TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 9002-93-1: MD0907700 YM0616666 YM0683332 LD50/LC50:

CAS# 9002-93-1: Draize test, rabbit, eye: 10 uL/24H Moderate; Draize test, rabbit, skin: 500 uL/24H Mild; Oral, rat: LD50 = 1800 mg/kg; Oral, rat: LD50 = 3800 mg/kg;



Shenzhen Sinsche Technology Co.,Ltd

Oral, rat: LD50 = 1900 mg/kg.

Carcinogenicity:

Ethoxylated p-tert-octylphenol - Not listed by ACGIH, IARC, or NTP.

Other:

See actual entry in RTECS for complete information.

12 - ECOLOGICAL INFORMATION

Ecotoxicity:

Fish-toxicity: Bluegill TL(96H): Dynamic Bioassay: >10 mg/l Static Bioassay: 12 mg/l

13 - DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations.

14 - TRANSPORT INFORMATION

IATA

No information available.

IMO

No information available.

RID/ADR

No information available.

15 - REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN

Risk Phrases:

R 22 Harmful if swallowed.

R 41 Risk of serious damage to eyes.

Safety Phrases:

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

S 39 Wear eye/face protection.

WGK (Water Danger/Protection)

CAS# 9002-93-1: 1

Canada

CAS# 9002-93-1 is listed on Canada's DSL List.

CAS# 9002-93-1 is listed on Canada's Ingredient Disclosure List.

US FEDERAL

TSCA

CAS# 9002-93-1 is listed on the TSCA inventory.