Unilong Industry Co., Ltd

Add: No.2000 Shunhua Rd, High-Tech Zone , Jinan City, Shandong Province, China

Chemical Safety Data Sheet

1Section 1 Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Identification on the label/Trade name:	Stannous Oxide
Additional identification:	Tin Protoxide
Identification of the product:	CAS No.21651-19-4; EC No.244-499-5

1.2 Relevant identified uses of the substance or mixture and uses advised against:

1.2.1 Identified uses:

It is mainly used as a reducing agent, and serves as an intermediate raw material for the manufacture of other tin compounds. Used as a reduction additive in the manufacture of gold-tin and copper-tin gem red glass, or as a tin hydroxide form for immersion tin plating.

1.2.2 Uses advised against:

Not applicable.

1.3 Details of the supplier of the safety data sheet:

Supplier(Only representative):	-
Supplier(Manufacturer):	Unilong Industry Co.,Ltd.
Address:	No.2000 Shunhua Rd, High-Tech Zone, Jinan City, Shandong Province, China
Telephone:	+86 0531 55690071
Fax:	+86 0531 55690071

1.4 Emergency telephone Number:

+86 0531 55690071

Available outside office hours? YES √ NO

National chemical accident emergency line: +86 0531 55690071

Section 2 Hazards Identification

2.1 Classification of the substance or mixture:

2.1.1 Classification:

The substance is classified as following according to Globally Harmonized System of Classification and Labelling of Chemicals (GHS Rev. 10, 2023) :

Globally Harmonized System of Classification and Labelling of Chemicals (GHS Rev. 10, 2023) :	
Hazard classes/Hazard categories	Hazard statement
Acute Tox. 4 Oral	H303
Skin Sens. 1	H317
Eye Dam.2	H319

For full text of H- phrases: see section 2.2.

2.2 Label elements:

Hazard Pictograms:

Signal Word(S): Warning

Hazard Statement:

H302: Cause skin irritation.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.

Precautionary statement:

P264+P265: Wash skin thoroughly after handling.Do not touch eyes.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P302 + P352 + P332+ P317: If skin contamination occurs, rinse thoroughly with water. If skin irritation occurs, seek medical attention.
P305 + P305+P338+P337+P317: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.Get medical help.
P362+P364: Take off contaminated clothing and wash it before reuse.
P405: Store locked up.
P501: Dispose of contents/container in accordance with local regulations.

2.3 Other hazards:

Not available.

Section 3 Composition/information on ingredients

Substance/Mixture: Substance

Ingredient(s):

Chemical Name	CAS No.	EC No.	Concentration	Classification
Stannous Oxide	21651-19-4	244-499-5	100 %	H302 H317 H319

Section 4 First aid measures

4.1 Description of first aid measures:

In all cases of doubt, or when symptoms persist, seek medical attention.

4.1.1 In case of inhalation:

Supply fresh air, consult a doctor in case of serious symptoms.

4.1.2 In case of skin contact:

Rinse thoroughly with water/soap for at least 15 minutes. Take off contaminated clothing.

4.1.3 In case of eyes contact:

Rinse immediately with plenty of running water for at least 15 minutes. Consult a doctor in case of serious symptoms.

4.1.4 In case of ingestion:

Drink enough warm water, urge vomiting, and seek medical treatment.

4.2 Most important symptoms and effects, both acute and delayed:

Not available.

4.3 Indication of any immediate medical attention and special treatment needed:

If skin irritation or rash occurs, get medical advice/attention.

Section 5 Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media: This product is non-flammable. Choose suitable extinguishing media according to the cause of fire.Use water mist,dry powder, foam or carbon dioxide (CO_2).

Unsuitable extinguishing media: Water with full jet.

5.2 Special hazards arising from the substance or mixture Not available.

5.3 Advice for firefighters: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Wear chemical resistant oversuit.

Section 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel: Prevent further leakage or spillage if safe to do so. Keep away from Incompatible products.Ensure adequate ventilation. Use personal protective equipment. Avoid the formation of dust.

6.1.2 For emergency responders: Isolate the contaminated area with access limitation. Emergency personnel should wear protective tools (such as chemical-resistant gloves, clothing, etc.) and do not touch the leaks directly.

6.2 Environmental Precautions: Do not be released into the environment. Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for Containment and Cleaning up: Prevent dust generation during collection and disposal.Store in a suitable airtight container for disposal.If a lot of leakage, cover with plastic cloth, canvas. Collect and recycle it or transport it to the waste disposal site for disposal.

6.4 Reference to other sections: See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

Section 7 Handling and storage

7.1 Precautions for safe handling:

7.1.1 Protective measures: Avoid formation of dust and aerosols.Provide appropriate exhaust ventilation at places where dust is formed.Normal measures for preventive fire protection. Keep away from Incompatible products.

7.1.2 Advice on general occupational hygiene: Do not eat, drink and smoke in work areas.Wash hands thoroughly after operation. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a dry and well-ventilated place.Keep away from fire. Set up warning sign that restricts the entry of unrelated personnel.

7.3 Specific end use(s): Not available.

Section 8 Exposure Controls/Personal Protection

8.1 Control parameters:

8.1.1 Occupational exposure limits: Not available.

8.1.2 Additional exposure limits under the conditions of use: Not available.

8.1.3 DNEL/DMEL and PNEC-Values: Not available.

8.2 Exposure controls:

8.2.1Appropriate engineering controls: Handle in accordance with good industrial hygiene and safety practice.Provide appropriate exhaust ventilation.Wash hands during breaks and at the end of the work.Avoid contact with the eyes and skin.Provide safety shower and cleaning eyes equipment.

8.2.2 Individual protection measures, such as personal protective equipment:

Eye/face protection: Wear face shield and chemical safety glasses.

Hand protection: Handle with chemical-resistant gloves.Full contact or splash contact:
Material: Nitrile rubber;Minimum layer thickness:0.11 mm;Break through time:480 min.

Body protection: Wear chemical-resistant overalls.

Respiratory protection: Wear a respirator when dust is generated. It is recommended to use a respirator approved by NIOSH/MSHA or EN 149.

Thermal hazards: Wear suitable protective clothing to prevent heat.

8.2.3 Environmental exposure controls: Avoid discharge into the environment.
According to local regulations, Federal and official regulations.

Section 9 Physical and chemical properties

Physical state:	Crystallized powder
Colour:	Orchid black with a metallic gloss
Odour:	Odorlessness
Molecular formula:	SnO
Molar mass:	134.7
Melting point/freezing point:	1040°C
Boiling point：	1425°C
Flammability:	Non-flammable.
Lower and upper explosion limit/ flammability limit:	Not applicable.
Flash point：	Not applicable.
Auto-ignition temperature:	Not applicable.
Decomposition temperature:	Not available.
pH:	Not applicable.
Viscosity, dynamic:	Not applicable.
Solubility:	Insoluble in water and alkali, soluble in acid and producing stallin salts.
partition coefficient:n-octanol/water (log value)	Not applicable.
Vapour pressure：	Not available.
Relative density（Water=1）:	6.45g/cm^3
Relative vapour density:	Not applicable.
Particle characteristics:	Not available.

Section 10 Stability and reactivity

10.1 Reactivity:	The substance is stable under normal storage and handling conditions.
10.2 Chemical stability:	The substance is stable under normal storage and handling conditions.
10.3 Possibility of hazardous reactions:	No dangerous reactions known.
10.4 Conditions to avoid:	Incompatible products and avoid the formation of dust.
10.5 Incompatible materials:	Strong oxidant, strong acid.
10.6 Hazardous decomposition products:	Tin, tin oxide.

Section 11 Toxicological information

11.1 Information on toxicological effects:

Acute toxicity:

LD50(Oral, Rat): Not available.

LD50(Dermal, Rabbit): Not available.

LC50(Inhalation, Rat): Not available.

Skin corrosion/Irritation: Cause skin irritation, may cause skin allergic reaction.

Serious eye damage/irritation: Cause severe ocular irritation.

Respiratory or skin sensitization: Not classified.

Germ cell mutagenicity: Not classified.

Carcinogenicity: Not classified.

Reproductive toxicity: Not classified.

STOT- single exposure: Not classified.

STOT-repeated exposure: Not classified.

Aspiration hazard: Not classified.

Section 12 Ecological information

12.1 Toxicity:

Stannous Oxide (CAS: 21651-19-4)

Acute (short-term) toxicity:

LC50(96h, Fish): Not available.

EC50 (48h, Crustacea): Not available.

ErC50(72h, Algae/aquatic plants): Not available.

12.2 Persistence and degradability: This product contains the heavy metals. Prevent its release into the environment. Special preprocessing is required. Persitention: insoluble in water and may persist.

12.3 Bioaccumulative potential: Not available.

12.4 Mobility in soil: The product is insoluble in water and cannot be spread in the water system.

12.5 Results of PBT and vPvB assessment: Not available.

12.6 Other adverse effects: Not available.

Section 13 Disposal considerations

13.1 Waste treatment methods: Manufacturers of chemical waste must consult local, regional and national hazardous waste management regulations to ensure adequate and accurate classification.

13.2 Product/Packaging disposal: If empty container retains product residues,all label precautions must be observed.Return for reuse or dispose according to national or local regulations

Section 14 Transport information

	Land transport (ADR/RID)	Inland waterways (ADN)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN number	_	_	_	_
UN Proper shipping name	_	_	_	_

Transport hazard Class(es)	–	–	–	–
Packing group	–	–	–	–
Environmental hazards	–	–	–	–
Special precautions for user	–	–	–	–
Transport in bulk according to Annex II of Marpol and the IBC Code	–	–	–	–

Section 15 Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

Relevant information regarding authorization: Not listed.

Relevant information regarding restriction: Not listed.

Other EU regulations: Employment restrictions concerning young person must be observed. For use only by technically qualified individuals.

Other National regulations: Not listed.

15.2 Chemical safety assessment YES NO X

Section 16 Other information

16.1 Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

RID: Regulation for rail International transportation of Dangerous goods.

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

IMDG: Code international maritime dangerous goods code.

ICAO: International Civil Aviation Organization.

LC50: median lethal concentration.

EC50: The effective concentration of substance that causes 50% of the maximum response.

DNEL: derived no-effect level.

PNEC: predicted no-effect concentration.

16.2 Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

16.3 Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.