# Tin (Sn) Powder

**US Research Nanomaterials, Inc.** **www.us-nano.com**

## SAFTY DATA SHEET

Revised Date 8/1/2026

## 1. PRODUCT AND COMPANY IDENTIFICATION

### 1.1 Product identifiers
Product name: Tin (Sn) Powder
Product Number: US1136
Tin (Sn) CAS#: 7440-31-5

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

### 1.3 Details of the supplier of the safety data sheet
Company: **US Research Nanomaterials, Inc.**
3302 Twig Leaf Lane
Houston, TX 77084
USA
Telephone: +1 832-460-3661
Fax: +1 281-492-8628

### 1.4 Emergency telephone number
Emergency Phone # : (832) 359-7887

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

### 2.2 GHS Label elements, including precautionary statements

Pictogram

Signal word Warning

Hazard statement(s)
H315: Causes skin irritation.
H320: Causes eye irritation

Precautionary statement(s)
P233: Keep container tightly closed.
P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P240: Ground/Bnd container and receiving equipment.
P241: Use explosion-proof-electrical/ventilating/lighting/…/equipment
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P264: Wash hands thoroughly after handling.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P312 Call a POISON CENTER or doctor/ physician if you feel unwell.
P370+P378: In case of fire: Use ... for extinction.

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS
None

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances
Tin (Sn) CAS#: 7440-31-5

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures
**General advice**
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
**If inhaled**
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
**In case of skin contact**
Wash off with soap and plenty of water. Consult a physician.
**In case of eye contact**
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
**If swallowed**
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11

### 4.3 Indication of any immediate medical attention and special treatment needed
no data available

## 5. FIREFIGHTING MEASURES

### 5.1 Extinguishing media
**Suitable extinguishing media**
Use CO2, dry chemical, or foam for extinction.

### 5.2 Special hazards arising from the substance or mixture
Some metallic oxides

### 5.3 Advice for firefighters
Wear self contained breathing apparatus for firefighting if necessary.

### 5.4 Further information
no data available

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid dust formation. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

### 6.2 Environmental precautions
Avoid release to the environment. See Section 12 for additional ecological information.

### 6.3 Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections
For disposal see section 13.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection. For precautions see section 2.2.

### 7.2 Conditions for safe storage, including any incompatibilities
Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Flammables area.

### 7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters
This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

### 8.2 Exposure controls
**Appropriate engineering controls**
Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

**Personal protective equipment**
**Eye/face protection**
Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
**Skin protection**

For any handling steps where the substance is in particulate form or in a suspension with pure water where the substance is not solubilized, the gloves must be comprised of material that successfully passes ASTM F-1671. For any handling steps where the substance is part of a carrier liquid, other than the aqueous suspension noted in the previous paragraph, gloves must be comprised of material that successfully passes ASTM F-739 (continuous liquid contact method). Gloves must be changed before they show degradation and before the designated breakthrough time for the carrier liquid (as determined by the ASTM F-739 testing or by the manufacturer). Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body Protection**

Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**

The EPA mandates the use of full face respirators with minimum N100 grade cartridges if there is any risk of exposure to the dust. For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure**

Do not let product enter drains.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

a) Appearance: solid
b) Odor: Odorless
c) Odor Threshold:
d) pH: no data available
e) Melting point/freezing point: 231.9 °C
f) Initial boiling point and boiling range: 2507 °C
g) Flash point: No information available
h) Evaporation rate: no data available
i) OSHA Flammability Class: no data available
j) Upper/lower flammability or explosive limits: no data available
k) Vapor pressure: no data available
l) Vapor density (air = 1): no data available
m) Relative density (water = 1): 7.31
n) Water solubility: Insoluble in water
o) Partition coefficient - noctanol/water: no data available
p) Auto-ignition temperature: no data available
q) Decomposition temperature: no data available
r) Viscosity: no data available
s) Explosive properties: no data available
t) Molecular Weight: 118.71

### 9.2 Other safety information

no data available

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

The product is stable.

### 10.2 Chemical stability

The product is stable.

### 10.3 Possibility of hazardous reactions
Excess heat, incompatible materials.

### 10.4 Conditions to avoid
Avoid heat, flames, sparks and other sources of ignition. Minimize contact with material. Avoid inhalation of material or combustion by-products. Keep out of water supplies and sewers. Do not store at elevated temperatures.

### 10.5 Incompatible materials
Strong acids, strong bases, strong oxidizers, nitrates

### 10.6 Hazardous decomposition products
Other decomposition products - Hydrogen
In the event of fire: see section 5

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects
**Acute toxicity**
Acute oral toxicity LD50 rat: Not available
Acute inhalation toxicity: Not available
Acute dermal toxicity LD50 rabbit: Not available
**Skin corrosion/irritation**
No information available
**Serious eye damage/eye irritation**
Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.
**Respiratory or skin sensitization**
Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.
**Germ cell mutagenicity**
no data available
**Carcinogenicity**
Not listed
**Reproductive toxicity**
no data available
**Specific target organ toxicity - single exposure**
no data available
**Specific target organ toxicity - repeated exposure**
no data available
**Aspiration hazard**
no data available
**Additional Information**
Acute Potential Health Effects: Skin: May cause skin irritation. Eyes: May cause eye irritation to due mechanical action.
Inhalation: Inhalation of tin dust may cause respiratory tract and mucous membrane tract irritation due to mechanical action.
Ingestion: It is poorly absorbed from the digestive tract. It can cause gastrointestinal tract disturbances which may be from irritant or astringent action on the stomach.
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## 12. ECOLOGICAL INFORMATION

### 12.1 Ecotoxicity

Not available

### 12.2 Persistence and degradability
No information available

### 12.3 Bioaccumulative potential
No information available

### 12.4 Mobility in soil
no data available

### 12.5 Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### 12.6 Other adverse effects
Do not allow product to enter surface waters, wastewater or soil.

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods
**Product**
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
**Contaminated packaging**

## 14. TRANSPORT INFORMATION

**US DOT Information**
Not applicable.

**IMDG Information**
Not applicable.

**IATA Information**
Not applicable.

## 15. REGULATORY INFORMATION

**SARA 302 Components**
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
**SARA 313 Components**
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
**SARA 311/312 Hazards**
Acute Health Hazard

## 16. OTHER INFORMATION

**Full text of H-Statements referred to under sections 2 and 3.**
H228 Highly flammable solid.
**HMIS Rating**
Health hazard: 1

Flammability:1
Physical Hazard 0

**NFPA Rating**

Health hazard: 1
Fire Hazard: 1
Reactivity Hazard: 0

**Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

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.