



# Safety Data Sheet

Skyspring Nanomaterials, Inc.

www.ssnano.com

02/01/2024

## 1 Identification of substance:

**Product details:** Tin Nanoparticles/nanopowder ( Sn, 99.7%, 100nm)

**Trade name:** Tin

**Product number:** 1021XH

**Manufacturer/Supplier:**

SkySpring Nanomaterials, Inc.

2935 Westhollow Dr., Houston, TX 77082, USA

Phone: 281-870-1700, Fax: 281-870-8002, Email: sales@ssnano.com

## 2 Hazards Identification

### 2.1 Classification of Substance or mixture

GHS Classification in accordance with 29 CFR 1910 ( OSHA HCS)

Eye irritation ( Category 2A), H319

Specific target organ toxicity- single exposure ( Category 3), Respiratory system, H335

### 2.2. GHS Label elements, including precautionary statements



Pictogram

Single word Warning

Hazard Statement(s)

H319 Causes serious eye irritation

H335 May cause respiratory irritation

Precautionary statement(s)

P261 Avoid breathing dust/fume/gas/mist/vapours/spray

P264 Wash skin thoroughly after handling

P271 Use only outdoors or in a well-ventilated area

P280 Wear eye protection/ face protection

P304+P340+P312 If inhaled. Remove victim to fresh air and keep at rest in a position comfortable for breathing

P305+P351+P338 If in eye: Rinse cautiously with water for several minutes

P337+P313 If eye irritation persists. Get medical advice/ attention

P403+P233 Store in a well-ventilated place. Keep container tightly closed

P405 Store locked up

Specific target organ toxicity- single exposure ( Category 3), respiratory system, H335

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

### 3 Composition/Data on components:

Chemical characterization:

Description:(CAS#)

Tin nanopowder (CAS# 7440-31-5), 100%

Identification number(s):

EC-No.: 231-141-8

### 4 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.

### 5 Fire fighting measures

#### **Flammable properties**

Flash point not applicable

Ignition temperature no data available

#### **Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### **Special protective equipment for fire-fighters**

Wear self contained breathing apparatus for fire fighting if necessary.

### 6 Accidental release measures

#### **Personal precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.

#### **Environmental precautions**

Do not let product enter drains.

#### **Methods for cleaning up**

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

### 7 Handling and storage

#### **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.

#### **Storage**

Keep container tightly closed in a dry and well-ventilated place.

Air and moisture sensitive. Handle and store under inert gas.

## **8 Exposure controls and personal protection**

### **Personal protective equipment**

#### **Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### **Hand protection**

Handle with gloves.

#### **Eye protection**

Safety glasses

#### **Skin and body protection**

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

#### **Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## **9 Physical and chemical properties:**

### **Appearance**

Form powder

### **Safety data**

pH no data available

Melting point 231.9 °C (449.4 °F)

Boiling point 2,270 °C (4,118 °F)

Flash point not applicable

Ignition temperature no data available

Lower explosion limit > 99.99 %(V)

Density 7.31 g/mL at 25 °C (77 °F)

Water solubility no data available

## **10 Stability and reactivity**

### **Storage stability**

Stable under recommended storage conditions.

### **Materials to avoid**

Strong oxidizing agents, Sulphur compounds, Strong bases, Halogens, Do not store near acids.

### **Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Tin/tin oxides

## **11 Toxicological information**

### **Acute toxicity**

no data available

### **Irritation and corrosion**

no data available

### **Sensitisation**

no data available

### **Chronic exposure**

Carcinogenicity - rat - Implant

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Tumorigenic: Tumors at site or application.

Carcinogenicity - mouse - Implant

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Tumorigenic: Tumors at site or application.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Signs and Symptoms of Exposure**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Potential Health Effects**

**Inhalation** May be harmful if inhaled. Causes respiratory tract irritation.

**Skin** May be harmful if absorbed through skin. Causes skin irritation.

**Eyes** Causes eye irritation.

**Ingestion** May be harmful if swallowed.

**Additional Information**

RTECS: XP7320000

**12 Ecological information:**

**Elimination information (persistence and degradability)**

no data available

**Ecotoxicity effects**

**Further information on ecology**

no data available

**13 Disposal considerations**

**Product**

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**

Dispose of as unused product.

**14 Transport information**

**DOT (US)**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

**15 Regulatory information**

**OSHA Hazards**

Irritant

**DSL Status**

All components of this product are on the Canadian DSL list.

**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

**Massachusetts Right To Know Components**

Tin

CAS-No.

7440-31-5

Revision Date

1991-07-01

**Pennsylvania Right To Know Components**

Tin

CAS-No.

7440-31-5

Revision Date

1991-07-01

**New Jersey Right To Know Components**

Tin

CAS-No.

7440-31-5

Revision Date

1991-07-01

**California Prop. 65 Components**

This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

**16 Other information:**

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 Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.