



Safety Data Sheet

Skyspring Nanomaterials, Inc.

www.ssnano.com

Revised on 02/01/2016

1 Identification of substance:

Product details: Tin Nanopowder

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 Composition/Data on components:

Chemical characterization:

Description:(CAS#)

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

Identification number(s):

EC-No.: 231-141-8

3 Hazards identification

Emergency Overview

OSHA Hazards

Irritant

HMIS Classification

Health Hazard: 2

Flammability: 0

Physical hazards: 0

NFPA Rating

Health Hazard: 2

Fire: 0

Reactivity Hazard: 0

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.

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 reventive 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.