



Safety Data Sheet

Skyspring Nanomaterials, Inc.

www.ssnano.com

Revision Date: 02/08/2016

1 Identification of substance:

- **Product details:**
- **Trade name:** Nickel(II) oxide
- **Product number:** 5410SC
- **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:

Formula : NiO
Molecular Weight : 74.69 g/mol
CAS-No. 1313-99-1

3 Hazards identification

Emergency Overview

OSHA Hazards

Carcinogen, Target Organ Effect, Respiratory sensitiser

Target Organs

Lungs

GHS Label elements, including precautionary statements

Signal word: Danger

Hazard statement(s)

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H350: May cause cancer.

H372: Causes damage to organs through prolonged or repeated exposure if inhaled.

Precautionary statement(s)

P201: Obtain special instructions before use.

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

P308 + P313: IF exposed or concerned: Get medical advice/attention.

HMIS Classification

Health hazard: 2

Chronic Health Hazard: *

Flammability: 0

Physical hazards: 0

NFPA Rating

Health hazard: 2

Fire: 0

Reactivity Hazard: 0

Potential Health Effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause 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

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. Evacuate personnel to safe areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

7 Handling and storage

Precautions for safe handling

Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for safe storage

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

Keep in a dry place.

8 Exposure controls and personal protection

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100

(US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air 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

Face shield and 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

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9 Physical and chemical properties:

Appearance

Form powder

Safety data

pH: no data available

Melting point: no data available

Boiling point: no data available

Flash point: not applicable

Ignition temperature: no data available

Lower explosion limit: no data available

Upper explosion limit: no data available

Density: 6.67 g/mL at 25 °C (77 °F)

Water solubility: no data available

10 Stability and reactivity

Chemical stability

Stable under recommended storage conditions.

Conditions to avoid

no data available

Materials to avoid

Strong acids

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Nickel/nickel oxides

11 Toxicological information

Acute toxicity

LD50 Subcutaneous - mouse - 50 mg/kg

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

May cause allergic respiratory reaction.

Germ cell mutagenicity

no data available

Carcinogenicity

This is or contains a component that has been reported to be carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.

Human carcinogen.

IARC: 1 - Group 1: Carcinogenic to humans (Nickel monoxide)

NTP: Known to be human carcinogen (Nickel monoxide)

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.

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure (GHS)

no data available

Specific target organ toxicity - repeated exposure (GHS)

Inhalation - Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard

no data available

Potential health effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Additional Information

RTECS: QR8400000

12 Ecological information:

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

May cause long-term adverse effects in the aquatic environment.

13 Disposal considerations

Product

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

14 Transport information

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

15 Regulations

OSHA Hazards

Carcinogen, Target Organ Effect, Respiratory sensitiser

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

Nickel monoxide

CAS-No.

1313-99-1

Revision Date

1993-04-24

SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

Nickel monoxide

CAS-No.

1313-99-1

Revision Date

1993-04-24

Pennsylvania Right To Know Components

Nickel monoxide

CAS-No.

1313-99-1

Revision Date

1993-04-24

New Jersey Right To Know Components

Nickel monoxide

CAS-No.

1313-99-1

Revision Date

1993-04-24

California Prop. 65 Components

WARNING! This product contains a chemical known to the State of California to cause cancer.

Nickel monoxide

CAS-No.

1313-99-1

Revision Date

2007-09-28

16 Other information:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement 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.