



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# Nickel(II) formate dihydrate: sc-269960



The Power to Question

## MATERIAL SAFETY DATA SHEET

### 1 Identification of substance:

**Product Name:** Nickel(II) formate dihydrate  
**Catalog Number:** sc-269960  
**Supplier:** Santa Cruz Biotechnology, Inc.  
2145 Delaware Avenue  
Santa Cruz, California 95060  
800.457.3801 or 831.457.3800  
**Emergency:** ChemWatch  
Within the US & Canada: 877-715-9305  
Outside the US & Canada: +800 2436 2255  
(1-800-CHEMCALL) or call +613 9573 3112

### 2 Composition/Data on components:

**Chemical characterization:**  
**Description: (CAS#)**  
Nickel(II) formate dihydrate (CAS# 15694-70-9)  
**Identification number(s):**  
**EINECS Number:** 222-101-0  
**Index number:** 028-021-00-0

### 3 Hazards identification

#### Hazard description:



T Toxic  
N Dangerous for the environment

#### Information pertaining to particular dangers for man and environment

R 49 May cause cancer by inhalation.  
R 61 May cause harm to the unborn child  
R 42/43 May cause sensitization by inhalation and skin contact.  
R 48/23 Also toxic: danger of serious damage to health by prolonged exposure through inhalation.  
R 68 Possible risk of irreversible effects.  
R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

#### Classification system

**HMS ratings (scale 0-4)**  
(Hazardous Materials Identification System)

HEALTH	1	Health (acute effects) = 1
FIRE	1	Flammability = 1
REACTIVITY	1	Reactivity = 1

#### GHS label elements



**Danger**

3.4/1 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
3.6/1B - May cause cancer.  
3.7/1A - May damage fertility or the unborn child.  
3.9/1 - Causes damage to organs through prolonged or repeated exposure.  
3.4/1 - May cause an allergic skin reaction.  
3.5/2 - Suspected of causing genetic defects.



**Warning**

4.1/1 - Very toxic to aquatic life with long lasting effects.

#### Prevention:

Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Do not breathe dust/fume/gas/mist/vapours/spray.

Avoid breathing dust/fume/gas/mist/vapours/spray.  
Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Contaminated work clothing should not be allowed out of the workplace.  
Avoid release to the environment.  
Wear protective gloves/protective clothing/eye protection/face protection.  
Use personal protective equipment as required.  
In case of inadequate ventilation wear respiratory protection.

**Response:**

IF ON SKIN: Wash with plenty of soap and water.  
IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.  
IF exposed or concerned: Get medical advice/attention.  
Get medical advice/attention if you feel unwell.  
Specific treatment (see on this label).  
If skin irritation or rash occurs: Get medical advice/attention.  
If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.  
Wash contaminated clothing before reuse.  
Collect spillage.

**Storage:**

Store locked up.

**Disposal:**

Dispose of contents/container in accordance with local/regional/national/international regulations.

#### 4 First aid measures

**General information** Immediately remove any clothing soiled by the product.

**After inhalation**

Supply fresh air and to be sure call for a doctor.  
Supply fresh air. If required, provide artificial respiration. Keep patient warm.  
Seek immediate medical advice.

**After skin contact**

Immediately wash with water and soap and rinse thoroughly.  
Seek immediate medical advice.

**After eye contact**

Rinse opened eye for several minutes under running water. Then consult a doctor.

**After swallowing** Seek immediate medical advice.

#### 5 Fire fighting measures

**Suitable extinguishing agents**

Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Special hazards caused by the material, its products of combustion or resulting gases:**

In case of fire, the following can be released:

Carbon monoxide and carbon dioxide

Toxic metal oxide fume

**Protective equipment:**

Wear self-contained respirator.

Wear fully protective impervious suit.

#### 6 Accidental release measures

**Person-related safety precautions:**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

**Measures for environmental protection:**

Do not allow material to be released to the environment without proper governmental permits.

**Measures for cleaning/collecting:**

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

**Additional information:**

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

#### 7 Handling and storage

**Handling**

**Information for safe handling:**

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation at the workplace.

Open and handle container with care.

**Information about protection against explosions and fires:** No special measures required.

**Storage**

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Store away from oxidizing agents.

**Further information about storage conditions:**  
 Keep container tightly sealed.  
 Store in cool, dry conditions in well sealed containers.

## 8 Exposure controls and personal protection

**Additional information about design of technical systems:**  
 Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

**Components with limit values that require monitoring at the workplace:**  
 Nickel and inorganic compounds, as Ni

	mg/m <sup>3</sup>
ACGIH TLV	1.5, A5-inhalable particulate (metal) 0.2, A1-inhalable particulate (insoluble compounds) 0.1, A4-inhalable particulate (soluble compounds)
Austria	Carcinogen
Denmark TWA	0.5
Finland TWA	0.1 (skin) Carcinogen
France VME	1; C3-Carcinogen
Germany	Carcinogen
Hungary	0.005-STEEL; Carcinogen (insoluble compounds)
Japan	1; 2B-Carcinogen
Korea TLV	1.5
Netherlands MAC-TGG	1; Carcinogen 1 (insoluble compounds)
Poland TWA	0.25
Russia	0.05-STEEL
Sweden NGV	0.5 (dust)
Switzerland MAK-W	0.5; Carcinogen
United Kingdom TWA	0.1
USA PEL	1

**Additional information:** No data

**Personal protective equipment**

**General protective and hygienic measures**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

**Breathing equipment:** Use suitable respirator when high concentrations are present.

**Protection of hands:** Impervious gloves

**Eye protection:** Safety glasses

**Body protection:** Protective work clothing.

## 9 Physical and chemical properties:

General Information	
<b>Form:</b>	Powder
<b>Change in condition</b>	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	Not determined
Sublimation temperature / start:	Not determined
<b>Flash point:</b>	Not applicable
<b>Ignition temperature:</b>	Not determined
<b>Decomposition temperature:</b>	Not determined
<b>Danger of explosion:</b>	Product does not present an explosion hazard.
<b>Explosion limits:</b>	
Lower:	Not determined
Upper:	Not determined
<b>Vapor pressure:</b>	Not determined
<b>Density at 20°C (68°F):</b>	2.15 g/cm <sup>3</sup>
<b>Solubility in / Miscibility with</b>	
Water:	Soluble
<b>Formula:</b>	Ni (HCO <sub>2</sub> ) <sub>2</sub> • 2H <sub>2</sub> O
<b>Weight:</b>	184.77

## 10 Stability and reactivity

**Thermal decomposition / conditions to be avoided:**

Decomposition will not occur if used and stored according to specifications.

**Materials to be avoided:** Oxidizing agents

**Dangerous reactions:** No dangerous reactions known

**Dangerous products of decomposition:** Carbon monoxide and carbon dioxide

## 11 Toxicological information

### Acute toxicity:

### Primary irritant effect:

on the skin: May cause irritation

on the eye: May cause irritation

Sensitization: Sensitization possible through skin contact.

### Subacute to chronic toxicity:

Nickel and nickel compounds may cause a form of dermatitis known as nickel itch. They may also cause intestinal disorders, convulsions and asphyxia. Airborne nickel contaminated dusts are regarded as carcinogenic to the respiratory tract.

### Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

May cause harm to the unborn child.

NTP-1: Known to be carcinogenic: sufficient evidence from human studies.

## 12 Ecological information:

### Ecotoxicological effects:

Remark: Very toxic for fish

### General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Also poisonous for fish and plankton in water bodies.

Do not allow material to be released to the environment without proper governmental permits.

Very toxic for aquatic organisms

## 13 Disposal considerations

### Product:

Recommendation Consult state, local or national regulations to ensure proper disposal.

### Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

## 14 Transport information

### DOT regulations:



Hazard class: 9  
Identification number: UN3077  
Packing group: III  
Proper shipping name (technical name): ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Nickel formate)  
Label: 9  
Remarks: Special marking with the symbol (fish and tree).

### Land transport ADR/RID (cross-border)



ADR/RID class: 9 (M7) Miscellaneous dangerous substances and articles  
Danger code (Kemler): 90  
UN-Number: 3077  
Packaging group: III  
Special marking: Symbol (fish and tree)  
Description of goods: 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Nickel formate)

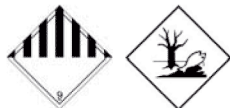
### Maritime transport IMDG:



IMDG Class: 9  
UN Number: 3077  
Label: 9  
Packaging group: III  
EMS Number: F-A, S-F  
Marine pollutant: Yes (P)  
Symbol (fish and tree)

**Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Nickel formate)

**Air transport ICAO-TI and IATA-DGR:**



**ICAO/IATA Class:** 9  
**UN/ID Number:** 3077  
**Label** 9  
**Special marking:** Symbol (fish and tree)  
**Packaging group:** III  
**Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Nickel formate)

**UN "Model Regulation":** UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., 9, III

## 15 Regulations

**Product related hazard informations:**

**Hazard symbols:**

T Toxic

N Dangerous for the environment

**Risk phrases:**

49 May cause cancer by inhalation.

61 May cause harm to the unborn child

42/43 May cause sensitization by inhalation and skin contact.

48/23 Also toxic: danger of serious damage to health by prolonged exposure through inhalation.

68 Possible risk of irreversible effects.

50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

**Safety phrases:**

53 Avoid exposure - obtain special instructions before use.

45 In case of accident or if you feel unwell, seek medical advice immediately.

60 This material and its container must be disposed of as hazardous waste.

61 Avoid release to the environment. Refer to special instructions/Safety data sheets

**National regulations**

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

This product contains a chemical known to the state of California to cause cancer or reproductive toxicity.

All components of this product are listed on the Canadian Non-Domestic Substances List (NDSL).

**Information about limitation of use:**

For use only by technically qualified individuals.

This product contains nickel and is subject to the reporting requirements of section 313 of the Emergency Planning and Community Right to Know act of 1986 and 40CFR372.

## 16 Other information:

The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.