

## MATERIAL SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: 1,3-Bis(diphenylphosphino)propane nickel(II) dichloride

Synonym(s): 1,3-Bis(diphenylphosphino)propane nickel dichloride

Product Code: NP-5981

General Use: Catalyst

Product Description: Yellowish red solid

MSDS Number: 5981EU070601

MANUFACTURER: Company Name: NICHIA CORPORATION

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IMPORTER/DISTRIBUTOR ESTABLISHED in Japan

(Company name) NICHIA CORPORATION TOKYO SALES OFFICE

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108-0014, JAPAN

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### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical formula:  $[(C_6H_5)_3P]_2NiCl_2$

Component	Chemical name	Wt%	CAS Registry#	EINECS No.
$[(C_6H_5)_2PCH_2CH_2CH_2P(C_6H_5)_2]NiCl_2$	1,3-Bis(diphenylphosphino)propane nickel dichloride	$\geq 97.0$	15629-92-2	-

### 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Causes eye and skin burns. Causes digestive and respiratory tract burns. Cancer hazard. Harmful if swallowed, inhaled, or absorbed through the skin. Moisture sensitive. The toxicological properties of this material have not been fully investigated.

POTENTIAL HEALTH EFFECTS:

Inhalation: Harmful if inhaled. May cause allergic respiratory reaction. Causes chemical burns to the respiratory tract.

Eye: Causes eye irritation.

Skin: Harmful if absorbed through the skin. Causes skin burns. Causes "nickel itch" which is a dermatitis resulting from sensitization to nickel, which is characterized by skin eruptions, followed by discrete ulcers that may discharge and become crusted, or by eczema. Ingestion: Causes gastrointestinal irritation with nausea, vomiting and diarrhea.

Ingestion: Harmful if swallowed. Causes gastrointestinal tract burns.

POTENTIAL ENVIRONMENTAL EFFECTS: No information available.

## MATERIAL SAFETY DATA SHEET

### 4. FIRST AID MEASURES

**INHALATION:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

**EYE:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.

**SKIN:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately.

Wash clothing before reuse.

**INGESTION:** If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

**PROTECTION TO FIRST-AIDERS:** Treat symptomatically and supportively.

### 5. FIRE FIGHTING MEASURES

**FLAMMABLE PROPERTIES:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

**EXTINGUISHING MEDIA:** Use water spray, dry chemical, carbon dioxide, or chemical foam.

**FIREFIGHTING INSTRUCTIONS:** Wear full fire fighting turn-out gear (full-bunker gear) and respiratory protection (self-contained breathing apparatus).

### 6. ACCIDENTAL RELEASE MEASURES

**LAND SPILL:** Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section.

**WATER SPILL:** Dike spill. Prevent material from entering sewers, waterways, or low areas.

### 7. HANDLING AND STORAGE

**HANDLING:** Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale. Use only in a chemical fume hood. Discard contaminated shoes.

**STORAGE:** Store in a cool, dry place. Keep container closed when not in use. Store in a tightly closed container. Keep under a nitrogen blanket.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**EXPOSURE LIMIT VALUE:** Not Established.

**ACGIH:** Not Established.

**EXPOSURE CONTROLS**

**OCCUPATIONAL EXPOSURE CONTROLS**

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash

## MATERIAL SAFETY DATA SHEET

facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

### Personal Protection

Respiratory Protection: Follow the European Standard EN 149. Always use European Standard EN 149 approved respirator when necessary.

Eye Protection: Safety glasses are required.

Skin Protection: Protective gloves are recommended.

Environmental Exposure Controls: No information found.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Physical State : Solid

Color : Yellowish red

Odor : Not available.

pH : Not available.

Melting Point : 213 deg C (Decompose)

Flash Point : Not available.

Flammability : Not available.

Specific Gravity : Not available.

Solubility in Water: may decompose

## 10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Not available.

STABILITY: Moisture sensitive.

MATERIALS TO AVOID: Strong oxidizing agents.

HAZARDOUS REACTIONS/DECOMPOSITION PRODUCTS: Hydrogen chloride, phosphine, carbon monoxide, oxides of phosphorus, carbon dioxide

## 11. TOXICOLOGICAL INFORMATION

Acute Toxicity: No information available.

Eye Irritation: No information available.

Skin Irritation: No information available.

Sensitization: No information available.

Mutagenicity: No information available.

## 12. ECOLOGICAL INFORMATION

ECOTOXICITY: No information available.

PERSISTENCE AND DEGRADABILITY: No information available.

BIOCUMULATIVE POTENTIAL: No information available.

## MATERIAL SAFETY DATA SHEET

### 13. DISPOSAL CONSIDERATIONS

Comply with all EU, national and local regulations.

Do not dump this material into sewers, on the ground or into any body of water.

### 14. TRANSPORT INFORMATION:

#### LAND TRANSPORT

##### ADR, RID

Class:

Packing Group(PG): Not Applicable.

UN Number: Not Applicable.

Proper Shipping Name: Not Applicable.

#### SEA TRANSPORT

##### IMDG

Class: Not Applicable.

Packing Group(PG): Not Applicable.

UN Number: Not Applicable.

Proper Shipping Name: Not Applicable.

Marine Pollutant: Not Applicable.

#### AIR TRANSPORT

##### ICAO/IATA

Class: Not Applicable.

Packing Group(PG): Not Applicable.

UN Number: Not Applicable.

Proper Shipping Name: Not Applicable.

### 15. REGULATORY INFORMATION

#### CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

##### R-Phrases

45: May cause cancer.

43: May cause sensitization by skin contact.

##### S-Phrases

26: In case of contact with eye, rinse immediately with plenty of water and seek medical advice.

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

(show the MSDS possible)

53: Avoid exposure - obtain special instructions before use.

Please refer to any other EU, national and local measures.

## MATERIAL SAFETY DATA SHEET

### 16. OTHER INFORMATION

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