



**NICKEL SULPHIDE**  
**CAS No 12035-72-2**

**MATERIAL SAFETY DATA SHEET**  
**SDS/MSDS**

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1 Product identifiers**

Product name : Nickel Sulphide

CAS-No. : 12035-72-2

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified uses : Laboratory chemicals, Industrial & for professional use only.

**1.3 Details of the supplier of the safety data sheet**

Company : Central Drug House (P) Ltd  
7/28 Vardaan House  
New Delhi -110002  
INDIA

Telephone : +91 11 49404040  
Email : [care@cdhfinechemical.com](mailto:care@cdhfinechemical.com)

**1.4 Emergency telephone number**

Emergency Phone # : +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008**

Skin sensitisation (Category 1), H317  
Germ cell mutagenicity (Category 2), H341  
Carcinogenicity, Inhalation (Category 1A), H350i  
Specific target organ toxicity - repeated exposure (Category 1), H372  
Acute aquatic toxicity (Category 1), H400  
Chronic aquatic toxicity (Category 1), H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

**2.2 Label elements**

**Labelling according Regulation (EC) No 1272/2008**

Pictogram



Signal word

Danger

Hazard statement(s)  
H317

May cause an allergic skin reaction.

H341	Suspected of causing genetic defects.
H350i	May cause cancer by inhalation.
H372	Causes damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)	
P201	Obtain special instructions before use.
P273	Avoid release to the environment.
P280	Wear protective gloves.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P501	Dispose of contents/ container to an approved waste disposal plant.

Supplemental Hazard Statements none

Restricted to professional users.

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Synonyms	:	Nickel subsulfide
Formula	:	Ni <sub>3</sub> S <sub>2</sub>
Molecular weight	:	240.21 g/mol
CAS-No.	:	12035-72-2
EC-No.	:	234-829-6
Index-No.	:	028-007-00-4

#### Hazardous ingredients according to Regulation (EC) No 1272/2008

Component		Classification	Concentration
<b>Trinickel disulphide</b>			
CAS-No.	12035-72-2	Skin Sens. 1; Muta. 2; Carc.	<= 100 %
EC-No.	234-829-6	1A; STOT RE 1; Aquatic Acute	
Index-No.	028-007-00-4	1; Aquatic Chronic 1; H317, H341, H350i, H372, H400, H410	
		M-Factor - Aquatic Acute: 10	

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### 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. Take victim immediately to hospital. Consult a physician.

#### In case of eye contact

Flush eyes with water as a precaution.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

#### **4.2 Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

#### **4.3 Indication of any immediate medical attention and special treatment needed**

No data available

### **SECTION 5: Firefighting measures**

#### **5.1 Extinguishing media**

##### **Suitable extinguishing media**

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

#### **5.2 Special hazards arising from the substance or mixture**

Sulphur oxides, Nickel/nickel oxides

#### **5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

#### **5.4 Further information**

No data available

### **SECTION 6: Accidental release measures**

#### **6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

#### **6.2 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.

#### **6.3 Methods and materials for containment and cleaning up**

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

#### **6.4 Reference to other sections**

For disposal see section 13.

### **SECTION 7: Handling and storage**

#### **7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

#### **7.2 Conditions for safe storage, including any incompatibilities**

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

Storage class (TRGS 510): Combustible solids, toxic

#### **7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

### **SECTION 8: Exposure controls/personal protection**

#### **8.1 Control parameters**

#### **8.2 Exposure controls**

##### **Appropriate engineering controls**

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

## Personal protective equipment

### Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

### Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use (EN 143) respirator cartridges as a backup to engineering controls. If th full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Control of environmental exposure

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

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Appearance	Form: powder Colour: grey
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	Melting point/freezing point: > 360 °C - OECD Test Guideline 102
f) Initial boiling point and boiling range	No data available
g) Flash point	Not applicable
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	5.8 g/mL at 25 °C
n) Water solubility	0.00735 g/l at 20 °C - OECD Test Guideline 105 - slightly soluble
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	> 400 °C

- |                              |                   |
|------------------------------|-------------------|
| q) Decomposition temperature | No data available |
| r) Viscosity                 | No data available |
| s) Explosive properties      | No data available |
| t) Oxidizing properties      | No data available |

## 9.2 Other safety information

No data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

No data available

### 10.5 Incompatible materials

Strong acids, Strong oxidizing agents

### 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Sulphur oxides, Nickel/nickel oxides  
Other decomposition products - No data available  
In the event of fire: see section 5

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - female - > 11,000 mg/kg(Trinickel disulphide)

LC50 Inhalation - Rat - male and female - 4 h - 1.13785 mg/l(Trinickel disulphide)  
(OECD Test Guideline 403)

#### Skin corrosion/irritation

Skin - Rabbit(Trinickel disulphide)

Result: Mild skin irritation - 4 h  
(OECD Test Guideline 404)

#### Serious eye damage/eye irritation

Eyes - Rabbit(Trinickel disulphide)

Result: Mild eye irritation  
(OECD Test Guideline 405)

#### Respiratory or skin sensitisation

No data available(Trinickel disulphide)

#### Germ cell mutagenicity

In vitro tests showed mutagenic effects(Trinickel disulphide)  
(Trinickel disulphide)

Mouse - male and female

Result: positive

#### Carcinogenicity

This is or contains a component that has been reported to be carcinogenic classification.(Trinickel disulphide)

Human carcinogen.(Trinickel disulphide)  
(Trinickel disulphide)

IARC: 1 - Group 1: Carcinogenic to humans (Trinickel disulphide)

#### **Reproductive toxicity**

No data available(Trinickel disulphide)

#### **Specific target organ toxicity - single exposure**

No data available(Trinickel disulphide)

#### **Specific target organ toxicity - repeated exposure**

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

#### **Aspiration hazard**

No data available(Trinickel disulphide)

#### **Additional Information**

RTECS: QR9800000

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

### **SECTION 12: Ecological information**

#### **12.1 Toxicity**

No data available

#### **12.2 Persistence and degradability**

No data available

#### **12.3 Bioaccumulative potential**

No data available

#### **12.4 Mobility in soil**

No data available(Trinickel disulphide)

#### **12.5 Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

#### **12.6 Other adverse effects**

Very toxic to aquatic life with long lasting effects.

### **SECTION 13: Disposal considerations**

#### **13.1 Waste treatment methods**

##### **Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chem scrubber.

##### **Contaminated packaging**

Dispose of as unused product.

### **SECTION 14: Transport information**

#### **14.1 UN number**

ADR/RID: 3077

IMDG: 3077

IATA: 3077

#### **14.2 UN proper shipping name**

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Trinickel disulphide)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Trinickel disulphide)

IATA: Environmentally hazardous substance, solid, n.o.s. (Trinickel disulphide)

<b>14.3 Transport hazard class(es)</b>		
ADR/RID: 9	IMDG: 9	IATA: 9
<b>14.4 Packaging group</b>		
ADR/RID: III	IMDG: III	IATA: III
<b>14.5 Environmental hazards</b>		
ADR/RID: yes	IMDG Marine pollutant: no	IATA: yes
<b>14.6 Special precautions for user</b>		

**Further information**

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

**SECTION 15: Regulatory information**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

**15.2 Chemical safety assessment**

For this product a chemical safety assessment was not carried out

**SECTION 16: Other information**

**Full text of H-Statements referred to under sections 2 and 3.**

H317	May cause an allergic skin reaction.
H341	Suspected of causing genetic defects.
H350i	May cause cancer by inhalation.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

**Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.cdhfinechemical.com](http://www.cdhfinechemical.com) for additional terms and conditions of sale.