

# GHS SAFETY DATA SHEET

REGULATION (EC) NO. 1907/2006, 1272/2008

## 1 – Identification of the substance and of the company

### Product identifier

**Trade Name:** NdFeB Permanent Magnet, all grades

**Article number:** Data not available

**Registration number:** Data not available

### Relevant identified uses of the substance or mixture and uses advised against

#### Application of the substance/ the preparation:

Cars, water pumps, audio, medical equipment, communications equipment, sensors, mineral processing equipment

### Details of the supplier of the safety data sheet

#### Manufacturer/Supplier

**Company Identification:** Indsutrial Magnetics Inc,

**Address:** 1385 S M75

Boyne City, MI

**Post Code:** 49712

**Tel :** 231-582-3100

**Fax :** 231-582-98456

### Emergency telephone number:

As above or next toxicological information center

## 2 – Hazards identification

### Classification of the substance or mixture

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

#### - Classification according to Regulation (EC) No 1272/2008

The substance is not classified according to the CLP regulation.

#### - Classification according to Directive 671548/EEC or Directive 1999/45/EC

Not applicable.

### Label elements

#### - Labeling according to Regulation (EC) No 1272/2008

The substance is not classified and labeled according to the CLP regulation.

- **Hazard pictograms:** Not applicable.

- **Signal word:** Not applicable.

- **Hazard-determining components of labeling:** Not applicable.

- **Hazard statements:** Not applicable.

### Other hazards

#### - Results of PBT and vPvB assessment

**PBT:** Not applicable.

**vPvB:** Not applicable.

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### 3 – Composition / information on ingredients

**Chemical characterization:** Mixtures

**Description:** Mixture of the substances listed below with nonhazardous additions.

Chemical Name	Percentage (by weight)		
Neodymium (PrNd)	29.0-31%	CAS No. 7740-00-8 EC number 231-109-3	substance with a Community workplace exposure limit
Iron (Fe)	66.9-69.9%	CAS No. 7439-89-6 EC number 231-096-4	substance with a Community workplace exposure limit
Boron (B)	1.1%	CAS No. 7440-42-8 EC number 231-151-2	substance with a Community workplace exposure limit

### 4 - First aid measures

**Description of first aid measures**

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**  
Rinse out mouth with water.  
Never give anything by mouth to an unconscious person.  
Do not induce vomiting; call for medical help immediately.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed:** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 - Firefighting measures

**Extinguishing media**

- **Suitable extinguishing agents**  
Product does not burn - take extinguishing measures according to fire conditions.  
CO<sub>2</sub> powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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

- **Can be released in case of fire**  
Toxic or harmful metal oxides

**Advice for firefighters**

- **Protective equipment**  
Do not inhale combustion gases.  
If necessary put on respirator.

### 6 - Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation

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Avoid formation of dust.

Mount respiratory protective device.

- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

- **Methods and material for containment and cleaning up:**

Pick up mechanically.

Dispose contaminated material as waste according to Section 13.

- **Reference to other sections**

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:**

- **Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Keep receptacles tightly sealed.

Prevent formation of dust.

- **Information about fire - and explosion protection:** Normal measures for preventive fire protection.

- **Storage:**

- **Conditions for safe storage, including any incompatibilities:**

- **Requirements to be met by storerooms and receptacles:** Store in a cool/location.

- **Information about storage in one common storage facility:**

Store away from foodstuffs.

Do not store together with oxidizing and acidic materials.

- **Further information about storage conditions:** Store in cool, dry conditions in well-sealed receptacles.

- **Specific end use(s)** No further relevant information available

## 8 - Exposure controls / personal protection

**Exposure controls**

- **Additional information about design of technical systems**

No further data; see Section 7.

**Control parameters**

- **Components with critical values that require monitoring at the workplace:**

Observe all workplace limits for dust:

Composition: Neodymium (PrNd): No date available.

Composition: Iron (Fe) (as dust, reference as iron oxide)

\* TLV-TWA 5 mg/m<sup>3</sup>(ACG H)

\* REL-TWA 5 mg/m<sup>3</sup>(N OSH)

\* PEL-TWA 10 mg/m<sup>3</sup>(OSHA)

Composition: Boron (B): No date available.

Respirable dusts are liberated only on abrasive treatment (e.g. sanding), but not from the product as delivered.

- **Additional information**

The lists that were valid during the compilation were used as basis.

**Personal protective equipment**

- **General protective and hygienic measures**

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Wash hands during breaks and at the end of the work.

Use skin protection cream for preventive skin protection.

## - Breathing equipment

Use breathing protection in case of dust formation.

If all workplace limits are observed and good ventilation is ensured, no special precaution necessary.

## - Recommended filter device for short term use

Particle filter EN 143 Type P2 or P3

## - Protection of hands

No chemical-protective gloves required.

Preventive skin protection by use of skin-protecting agents is recommended.

## - Material of gloves

not applicable

## - Penetration time of glove material

not applicable

## - Eye protection

Safety glasses are recommended when high amounts of dust are formed.

## - Body protection

Protective clothing should be selected specifically for the working place.

## 9 - Physical and chemical properties

### - Information on basic physical and chemical properties

#### - General information

##### - Appearance:

Form: Solid

Color: Black

##### - Odor:

Odorless

##### - Odor threshold:

Data not available.

##### - pH-value:

Data not available

#### - Change in condition

**Melting point/Melting range:** Data not available.

**Boiling point/Boiling range:** Data not available

**Freezing point:** Data not available

##### - Flash point:

Data not available

##### - Flammability (solid, gaseous):

Date not available.

##### - Auto-ignition temperature:

Data not available

##### - Decomposition temperature:

Date not available.

##### - Self-igniting:

Product is not self-igniting.

##### - Explosive properties:

Product does not present an explosion hazard.

##### - Explosion limits:

**Lower:**

Data not available.

**Upper:**

Data not available.

##### - Oxidizing properties:

Data not available.

##### - Vapor pressure:

Date not available.

##### - Density:

Data not available.

##### - Relative density

Data not available.

##### - Vapor density

Date not available.

##### - Evaporation rate

Data not available

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- **Solubility in I Miscibility with water:** Data not available
- **Partition coefficient (n-octanol/water):** Data not available.
- **Viscosity:**
  - Dynamic:** Data not available
  - Kinematic:** Data not available
- **Other information** No further relevant information available.

## 10 - Stability and reactivity

### Chemical stability

- **Thermal decomposition / conditions to be avoided**  
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**  
Reacts with strong acids and oxidizing agents  
Reacts with acids releasing hydrogen.
- **Incompatible materials**  
Strong oxidizing agents  
Strong acids
- **Hazardous decomposition products**  
Toxic or harmful metal oxides

## 11 – Toxicological information

### Toxicological information:

Composition: Neodymium (PrNd) RTECS# 008575000

Composition: Iron (Fe) RTECS# NO4565500

LD50: 30 g/kg (Oral, rat)

Composition: Boron (B) RTECS# ED7350000

LD50: 560 mg/kg (Oral, mouse)

LD50: 650 mg/kg (Oral, rat)

LD50: 310 mg/kg (Oral, rabbit)

### Primary irritant effect:

- **on the skin:** Irritating effect possible.
- **on the eye:** Irritating effect possible.

**Sensitization:** Sensitization possible.

**Toxicokinetics, metabolism and distribution** No further relevant information available.

**Acute effects (acute toxicity, irritation and corrosivity)** No further relevant information available.

**Repeated dose toxicity** No further relevant information available.

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)** No further relevant information available

## 12 – Ecological information

### - Toxicity

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
  - Bio-accumulative potential** No further relevant information available.
  - Mobility in soil** No further relevant information available.

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### - Additional ecological information:

#### - General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

#### - Results of PBT and vPvB assessment

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

## 13 - Disposal considerations

### Waste treatment methods

#### - Recommendation

Disposal must be made according to official regulations.

#### - Waste disposal key number

According to local/national regulations.

#### - European waste catalogue

Waste disposal key numbers from EWC have to be assigned depending on origin and processing.

### Unclean packaging

#### - Recommendation

Disposal must be made according to official regulations.

## 14 - Transport information

Regulated as a hazardous material for air transportation. (IATA DGR)

UN Number: 2807

UN Proper Shipping Name: Magnetized material

UN Classification: 9

Packing instruction: 953

Packaging Sign:



Packing Group: N/A

Transport Fashion: By air

Shipping Notice: During the process of shipping should ensure the integrity of the packaging, loading should be conservative, and must prevent sunshine, the rain and high-temperature.

## 15 – Regulatory information

Regulatory Information: Reference to the local, national, US, EU, CA and international regulations.

TSCA: CAS# 7440-00-8, CAS# 7439-89-6 and CAS# 7440-42-8 are listed.

DSL: CAS# 7440-00-8, CAS# 7439-89-6 and CAS# 7440-42-8 are listed.

OSHA: CAS# 7439-89-6 is listed; CAS# 7440-00-8 and CAS# 7440-42-8 are unlisted

California Prop 65: CAS# 7440-00-8, CAS# 7439-89-6 and CAS# 7440-42-8 are unlisted.

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IECSC: CAS# 7440-00-8, CAS# 7439-89-6 and CAS# 7440-42-8 are listed.

European Labeling in Accordance with EC Directives:

Hazard Symbols: None.

Risk Description: None.

Safety Description: None.

## 16 – Additional information

Issue Time: 2015-05-28

Issue Department: Technical department

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Modification Record: 2018-3-7

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The contents and format of this MSDS/SDS are in accordance with REGULATION (EC) No 1272/2008, REGULATION (EC) No 1907/2006, Regulation (EU) No 453/2010 and EU Commission Directive 1999/451 EC, 671548/EEC.

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### Other information:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

CAS: Chemical Abstracts Service

DSL: Domestic Substances List of Canada

EC: European Commission

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association

ECSC: Inventory of Existing Chemical Substances in China

IMDG: International Maritime Dangerous Goods

LD50: Lethal dose, 50 percent kill

MAC: Maximum Allowable Concentration

NDSL: Non-domestic Substances List of Canada

NIOSH: US National Institute for Occupational Safety and Health

NTP: US National Toxicology Program

OSHA US Occupational Safety and Health

PEL: Registry of Toxic Effects of Chemical Substances

STEL: Short Term Exposure Limit

TDG: Transport of Dangerous Goods Model Regulations

TWA: Time Weighted Average

TLV: Threshold Limit Value