

# MATERIAL SAFETY DATA SHEET

24 HR. EMERGENCY PHONE # CHEM-TREC 1-800-424-9300

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## SECTION 1 Product Identification

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**CHEMICAL NAME:** Nickel boride  
**CAS #:** 12007-00-0  
**FORMULA:** NiB

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## SECTION 2 Composition and Information on Ingredients

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INGREDIENT:	CAS #	%	ACGIH (TWA)	OSHA (PEL)
Title Compound	12007-00-0	100	0.2mg/m <sup>3</sup> (as Ni)	1 mg/m <sup>3</sup> (as Ni)

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## SECTION 3 Hazards Identification

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**EMERGENCY OVERVIEW:** May be irritating to skin, eyes and respiratory tract. May cause sensitization by skin contact. May cause cancer. Boron affects the central nervous system.

**PRIMARY ROUTES OF EXPOSURE:** Ingestion, inhalation of dust

**EYE CONTACT:** May cause irritation of the eyes, redness and pain.

**SKIN CONTACT:** May cause irritation of the skin with redness or rash. Prolonged contact with nickel salts may lead to dermatitis.

**INHALATION:** Dust may be irritating to the nose, mucous membranes, and respiratory tract.

**INGESTION:** Ingestion may lead to abdominal cramps, vomiting, bloody diarrhea, weakness, and convulsions. High doses may cause boron poisoning.

**CHRONIC HEALTH EFFECTS:** Prolonged exposure to nickel and nickel compounds may lead to skin irritation and dermatitis. May cause cancer. Boron affects the central nervous system. Poisoning causes depression of circulation, vomiting, diarrhea, shock and coma.

**ACUTE HEALTH EFFECTS:** May be irritating to skin, eyes and respiratory tract. May cause sensitization by skin contact.

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## SECTION 4 First Aid Measures

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**EYE EXPOSURE:** Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

**SKIN EXPOSURE:** Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

**INHALATION:** Remove the victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases seek immediate medical assistance.

**INGESTION:** Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if

conscious). Induce vomiting only if directed by medical personnel.

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## **SECTION 5                      Firefighting Measures**

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**FLASH POINT:** not applicable

**AUTO IGNITION TEMPERATURE:** none

**EXPLOSION LIMITS:** none

**EXTINGUISHING MEDIUM:** carbon dioxide, foam or dry powder

**SPECIAL FIREFIGHTING PROCEDURES:** If involved in a fire, fire fighters should be equipped with a NIOSH approved positive pressure self-contained breathing apparatus and full protective clothing.

**HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS:** If involved in a fire this material may emit toxic fumes.

**UNUSUAL FIRE OR EXPLOSION HAZARDS:** No unusual fire or explosion hazards.

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## **SECTION 6                      Accidental Release Measures**

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**SPILL AND LEAK PROCEDURES:** Small spills can be mixed with vermiculite, sodium carbonate or other suitable non combustible adsorbent and swept up.

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## **SECTION 7                      Handling and Storage**

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**HANDLING AND STORAGE:** Store material in a tightly sealed container.

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## **SECTION 8                      Exposure Controls and Personal Protection**

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**EYE PROTECTION:** Always wear approved safety glasses w/side shields, or safety goggles, face shield when handling a chemicals substance in the laboratory.

**SKIN PROTECTION:** Chemical-resistant.

**VENTILATION:** If possible, handle the material in an efficient fume hood.

**RESPIRATOR:** If in form of fine dust and ventilation is not available a respirator should be worn. The use of respirators requires a Respirator Protection Program to be in compliance with 29 CFR 19-10.134.

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## **SECTION 9                      Physical and Chemical Properties**

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**COLOR AND FORM:** -35 mesh silver gran.

**MOLECULAR WEIGHT:** 69.52

**MELTING POINT (DEG. C.):** none

**BOILING POINT:** no data

**VAPOR PRESSURE:** no data

**SPECIFIC GRAVITY:** 7.39

**SOLUBILITY IN WATER:** insoluble

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## **SECTION 10                    Stability and Reactivity**

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**STABILITY:** air and moisture stable

**HAZARDOUS POLYMERIZATION:** no hazardous polymerization

**CONDITIONS TO AVOID:** none  
**INCOMPATIBILITY:** oxidizing agents and halogens  
**DECOMPOSITION PRODUCTS:** oxides of boron and nickel oxide

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## **SECTION 11 Toxicological Information**

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**RTECS DATA:** No information available in the RTECS files.  
**MUTAGENIC EFFECTS:** no data  
**TETRATOGENIC EFFECTS:** no data  
**CARCINOGENIC EFFECTS:** no data

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

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## **SECTION 12 Ecological Information**

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**ECOLOGICAL INFORMATION:** No information available

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## **SECTION 13 Disposal Considerations**

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**DISPOSAL:** Dispose of in according to local state and federal regulations.

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## **SECTION 14 Transportation Information**

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Non-hazardous

Non-hazardous

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## **SECTION 15 Regulatory Information**

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**TSCA:** Listed in the TSCA inventory  
**SARA (TITLE 313):** Title compound : See category N495 for reporting.

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## **SECTION 16 Other Information**

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