

MATERIAL SAFETY DATA SHEET (MSDS)

Product: Sodium Cyanide (NaCN)
Supplier: Boxx Chemical Distributor
Website: <https://boxxchemdistributor.com/>

SECTION 1: Identification

Product Name: Sodium Cyanide
Synonyms: NaCN, Cyanide Solid
CAS Number: 143-33-9
Recommended Use: Gold extraction, metal processing, electroplating, chemical manufacturing
Supplier: Boxx Chemical Distributor
Website: <https://boxxchemdistributor.com/>
Emergency Phone: [Insert emergency number]

SECTION 2: Hazards Identification

Classification: Acute oral toxicity (Cat. 2), inhalation (Cat. 1), skin corrosion (Cat. 1B), eye damage (Cat. 1), aquatic toxicity (Cat. 1)
Signal Word: Danger
Hazards: Fatal if swallowed or inhaled, causes burns and eye damage, very toxic to aquatic life.

SECTION 3: Composition / Information on Ingredients

Sodium Cyanide, CAS 143-33-9, Purity $\geq 96-99\%$
Impurities: May contain sodium hydroxide or moisture.

SECTION 4: First Aid Measures

If swallowed: Do not induce vomiting. Rinse mouth. Seek immediate medical aid.
If on skin: Remove contaminated clothing. Rinse skin with water.
If in eyes: Rinse cautiously for 15 minutes. Seek medical attention.
If inhaled: Move to fresh air. Administer oxygen if breathing is difficult. Call a physician.

SECTION 5: Fire-Fighting Measures

Extinguishing Media: Dry chemical, foam, CO₂. Do not use water jet.
Special Hazards: May release hydrogen cyanide gas.
Protection: Firefighters must wear SCBA and protective clothing.

SECTION 6: Accidental Release Measures

Precautions: Evacuate area. Avoid dust and contact. Use PPE.
Environmental Precautions: Prevent from entering drains/waterways.
Cleanup: Sweep carefully and dispose in sealed containers.

SECTION 7: Handling and Storage

Handle only with ventilation and PPE. Avoid contact with skin, eyes, clothing.
Store in cool, dry, ventilated place away from acids and moisture.

SECTION 8: Exposure Controls / Personal Protection

Engineering Controls: Use closed systems and ventilation.
PPE: Respirators, gloves, goggles, protective clothing.

SECTION 9: Physical and Chemical Properties

Appearance: White crystalline solid

Odor: Faint almond-like

Solubility: Soluble in water

pH: 11–14 in solution

Melting Point: 563°C (decomposes).

SECTION 10: Stability and Reactivity

Stable when dry. Avoid moisture, acids, and heat. Hazardous decomposition includes hydrogen cyanide gas.

SECTION 11: Toxicological Information

Highly toxic by ingestion or inhalation. LD50 oral (rat): ~5 mg/kg. Causes severe burns and respiratory distress.

SECTION 12: Ecological Information

Very toxic to aquatic organisms. Highly mobile in soil. Avoid release to environment.

SECTION 13: Disposal Considerations

Neutralize with bleach or hydrogen peroxide before disposal. Follow local regulations.

SECTION 14: Transport Information

UN Number: 1689

Proper Shipping Name: Sodium Cyanide, solid

Hazard Class: 6.1 (Toxic)

Packing Group: I

Labels: Toxic, Environmental Hazard.

SECTION 15: Regulatory Information

Regulated under international chemical safety laws (GHS, OSHA, REACH).

SECTION 16: Other Information

Revision Date: [Insert Date]

Disclaimer: Information believed correct but without warranty. Boxx Chemical Distributor assumes no liability for misuse.