

Sodium Cyanide

(CAS NO. : 143-33-9)

Work with cyanide-containing compounds requires special care. The safety manual has prescriptive requirements for work with chemicals.

KNOW THE HAZARD OF
THE MATERIALS YOU ARE USING

**This material is hazardous according to
Regulation of Korea Toxic Chemical Control
Act: Hazardous Chemical**

**And this material is toxic chemical and Accident
Precaution Chemical according to Regulation of
Korea: Toxic Chemicals Control Act: Toxic
Chemical and Accident Precaution Chemical
Exposure Controls and Personal Protection**

Occupation Exposure Limit:

Korean Regulation:

TWA – $3\text{mg}/\text{m}^3$, STEL – $5\text{mg}/\text{m}^3$

ACGIH Regulation:

TLV – TWA – $5\text{mg}/\text{m}^3$

Adequate exposure control: Ensure compliance
with applicable exposure limit

Handling

1. Use rubber gloves, aprons, boots, goggles and other protective items when handling NaCN.
2. Wear dust-proof masks or gas mask when necessary.
3. Do not handle the material near places where acids is handled.
4. Remove immediately by washing in case sodium cyanide solution is spilled.
5. This material should be handled by at least two workers to watch the situation with each other.
6. Do not eat foods or drink beverage in the same area where sodium cyanide is handled.
7. The workers must take a bath or shower and change their clothes after the work.

Personal Protective Equipment:

1. Respirator: Wear appropriate Respirator approved by Local Occupational Safety & Health Administration or NIOSH(USA) & OSHA(USA).
2. Eye Protection: Wear splash resistant safety goggles with a face piece. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.
3. Gloves: Wear appropriate chemical resistant gloves.
4. Clothing: Wear appropriate chemical resistant clothing.

FIRST AID

Inhalation:

When safe to enter area, remove from exposure. Use a bag valve mask or similar device to perform artificial respiration (rescue breathing) if needed. Get medical attention immediately.

Skin Contact:

Remove contaminated clothing, jewelry, and shoes immediately. Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15~20 minutes).

Get medical attention, if needed.

Eye Contact:

Wash eyes immediately with large amounts of water, occasionally lifting upper and lower lids, until no evidence of chemical remains. Continue irrigating with normal saline until ready to transport to hospital. Cover with sterile bandages. Get medical attention immediately.

Ingestion:

Contact local poison control center or physician immediately. Never make an unconscious person vomit or drink fluids. When vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side.

Get medical attention immediately.

Antidote:

Amyl Nitrite, inhalation; Sodium Nitrite, intravenous; Sodium Thiosulfate, infusion; oxygen.

Personal Precautions

- Clear area of all unprotected personnel.
- Do not touch spilled material
- Stop leak if possible without personal risk
- Reduce vapors with water supply

Health Effect

Acute toxicity is high; ingestion of NaCN or exposure to their salts or their aqueous solutions by eye or skin contact can be fatal; exposure to as little as 50-150 milligrams can cause immediate collapse and death.

Symptoms include weakness, headache, dizziness, Rapid breathing, nausea and vomiting.

Storage

1. Must be stored in a cool, dry, well ventilated place, in a special locked storeroom and out of direct sunlight
2. Must not be stored in any place where acidic gases may be generated or, acid, nitrates or nitrites are stored.
3. When the package is not opened, no special ventilation equipment is required. But avoid long term storage once sodium cyanide is dissolved or comes directly into contact with air.

Disposal Methods:

Dispose of product and containers in accordance with Local Regulations.

Sodium Cyanide

Formula: NaCN

Molecular Weight: 49.015

Appearance: White Crystalline Solid

Specific Gravity: 1.596 at 20 °C

Melting Point/Range(°C): 562.3 °C

Usage:

1. Extraction of gold, silver, and other nonferrous metals from ores
2. Electroplating, Heat treatment of metals
3. Production of hydrocyanic acid, insecticides, dyes and pigments
4. Fumigation, Ore floatation
Organic synthesis

For additional information, See Material Safety Data Sheet (MSDS)

Identification of The material & Supplier

Manufacturer:

TAEKWANG INDUSTRIAL CO., LTD.
162-1, 2-GA JANGCHUNG-DONG CHOONG-GU
SEOUL, KOREA
C.P.O BOX: 1173 SEOUL
CABLE: "TAEKWANG" SEOUL
TELEX: "PIGEON" K28219
FACSIMILE: 82-2-3406-0226
TELEPHONE: 82-2-3406-0300

Emergency Contact Point:

TAEKWANG INDUSTRIAL CO., LTD.
PETROCHEMICAL 3RD PLANT
Safety & Environment (S&E) Team or
TAEKWANG INDUSTRIAL CO., LTD.
Petrochemical Sales Department
Tel. No. S&E Team 82-52-259-9703
Sales Department 82-2-3406-0334

SODIUM CYANIDE HANDLING GUIDE BOOK



**TAEKWANG
INDUSTRIAL**