

Swallowing

Conscious

- Give oxygen and amyl nitrite immediately (see procedure).
- Immediately rinse mouth out with water (suitable for drinking). Do not swallow.
- DO NOT induce vomiting.

Unconscious/Not breathing

- DO NOT give unconscious person anything by mouth.
- Give oxygen and amyl nitrite immediately (see procedure).
- DO NOT induce vomiting.

AMYL NITRITE PROCEDURE

Note to rescuer: All those responding to provide first aid must be properly trained. Amyl nitrite is flammable. Remove all sources of ignition; do not smoke! To avoid dizziness, do not inhale amyl nitrite. The uninterrupted administration of amyl nitrite can cause low blood pressure or dizziness. All cyanide exposure cases should be followed up with trained medical personnel.

If breathing:

1. Crush ampule in gauze or cloth.
2. Hold ampule in cloth or gauze under nose for 15 seconds then move away.
3. Repeat step two (above) 5-6 times per ampule, using a new ampule every 3 minutes if needed (1-4 ampules).
4. Continue treatment until medical help arrives.

If NOT breathing:

1. Crush ampule in gauze or cloth.
2. Hold ampule and gauze under oxygen resuscitator facemask to avoid choking from ampule in throat.
3. Force deep breathing with resuscitator, 1 breath every 4-5 seconds. Hold ampule for 3 breaths, take out for 3 breaths.
4. Repeat 5-6 times per ampule, using new ampule every 3 minutes (1-4 ampules).
5. Continue treatment until victim is conscious or until relieved by medical personnel. Avoid overusing amyl nitrite.

TIME IS CRITICAL - IMMEDIATE TREATMENT IS ESSENTIAL

Local Medical

Emergency

Telephone: -----

Emergency Phone:

Canada:	<i>Canutec</i>	1-613-996-6666
	<i>Evonik (DETER)</i>	1-251-443-1634
Mexico:	<i>Setiq</i>	01-800-00-21400
	<i>Evonik (DETER)</i>	001-251-443-1634
USA only:	<i>Chemtrec</i>	1-800-424-9300
	<i>Evonik (DETER)</i>	1-251-443-1634
International	<i>Chemtrec</i>	001-703-527-3887
Collect Call:	<i>Evonik (DETER)</i>	001-251-443-1634

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Cyanides

Handle with Care

Handling and Emergency Response Procedures

cyanco

PRODUCT INFORMATION

Cyanides in both solid and liquid form are highly toxic. Contact with acids produces highly toxic hydrogen cyanide gas (HCN).

A mixture of HCN with air may be explosive and/or flammable.

Cyanide poisoning can occur when cyanides, – liquid or solid – or hydrogen cyanide gas enter the body through:

• Ingestion • Inhalation • Absorption through the skin and eyes

Cyanides are severe irritants to eyes, skin and mucous membranes and produce caustic burns due to their alkaline characteristics.

Cyanides can be handled and applied in a safe manner if the safety instructions and recommendations for cyanide handling described below are observed. In case of poisoning and/or an emergency, the first aid and/or emergency response procedures must be closely followed. For additional information, refer to the Material Safety Data Sheet, MSDS.

HANDLING PROCEDURES Handling *Do's* and *Don'ts*

Do's

- Understand and follow all operating and safety procedures.
- Have a cyanide emergency response procedure in place which can be understood by all those working with cyanide.
- Allow only trained people to handle cyanide.
- Use the proper protective equipment when working with cyanide to avoid inhalation and contact with skin and eyes.
- Design work processes to prevent the generation of cyanide dust or hydrogen cyanide gas (HCN).
- If exposure to cyanide dust or HCN gas is possible, wear the appropriate approved respirator.
- Have emergency showers and eye washes available in the immediate vicinity of the cyanide storage and application areas.
- Wash hands thoroughly after use and before coming in contact with any food, beverages or smoking materials.
- Change clothing immediately when leaving the cyanide area and launder thoroughly (never at home) before wearing again.
- Decontaminate the empty cyanide packaging using the approved procedures, according to local regulations.
- The cyanide packaging must be properly disposed of or returned, and should never be used for any other purpose.

- All effluent that contains cyanide must be treated to destroy the cyanide prior to its release to the environment. The final discharge should be tested for cyanide.

Don'ts

- Don't work alone.
- Don't eat, drink, smoke or use any tobacco products, or chew gum in a cyanide area.
- Don't store food, beverages or smoking material in a cyanide area.
- Don't rely on odor to detect cyanide. Use an HCN detection device.
- Don't allow cyanide to come into contact with acids, acidic salts or oxidants during transport and storage.
- Don't touch cyanide with unprotected hands.
- Don't allow unauthorized personnel into a cyanide area.

EMERGENCY RESPONSE

TIME IS CRITICAL, IMMEDIATE TREATMENT IS ESSENTIAL

Emergency Equipment

Maintain the following equipment for responding to emergency situations:

- Proper personal protective equipment
- Supplied-air respirator such as a self-contained breathing apparatus
- Eye wash and emergency shower
- Medical oxygen
- Approved artificial resuscitators such as a manual respirator bag
- Cyanide antidote kits: approved, registered and updated

Symptoms of Poisoning

Symptoms of cyanide poisoning are often of an unspecific nature, especially in the early stages:

- Throat irritation • Heart palpitations • Salivation • Headache
- Nausea • Shortness of breath • Dizziness (Vertigo) • Drowsiness
- Metallic taste in mouth • Weakness in arms and legs

In a more serious state of poisoning, the victim can show the following additional symptoms:

- Collapse • Respiratory arrest • Unconsciousness • Convulsions

Progression of symptoms can be very rapid.

Seek medical attention immediately.

Rescue Procedure

- Call for help. Activate professional emergency medical services.
- Immediately call for assistance from nearby available persons.
- Always protect yourself from cyanide exposure. Don't become another victim. Never attempt to rescue a cyanide victim without activating emergency medical response system.
- Medical personnel must be advised of:
 - dose and duration of cyanide poisoning, if known
 - victim being responsive or unconscious
 - exact location of the accident
- Remove victim from contaminated area.
- Decontaminate the victim (while protecting yourself) with large quantities of water and remove contaminated clothing.
- Have First Aid and suitable antidote kit available for emergency medical responders/doctor.
- Only properly trained personnel should administer first aid and resuscitative measures to cyanide victims.
- Keep victim calm, protect victim from cold (hypothermia) and heat (sun radiation).
- Designate somebody as an escort for emergency medical response team.

FIRST AID PROCEDURE

This advice may vary by region; see **Material Safety Data Sheet** for proper treatment in your region.

Inhalation

Fully conscious

- Give oxygen.

Unconscious / Not fully conscious

- Give oxygen and amyl nitrite immediately (see procedure).

Not breathing

- Give oxygen and amyl nitrite.
- Force breathing with oxygen resuscitator or protected artificial respiration.

Absorption through skin/eyes

- Give oxygen and amyl nitrite immediately (see procedure).
- Immediately rinse with plenty of water (suitable for drinking) for at least 15 minutes and remove contaminated clothing.
- Lay victim down and keep warm.
- Watch victim for 1-2 hours.
- Cyanides can also cause caustic burns.