



COLUMBIA UNIVERSITY  
ENVIRONMENTAL HEALTH AND SAFETY  
Post Exposure **PRINT & GO** Sheet

Hydrogen Cyanide post-exposure guidance

Created: 8/25/2016

Revised: / /

<http://ehs.columbia.edu/CyanidePrintAndGo.pdf>

### What are print and go sheets?

Following an occupational exposure to the agent identified above, this information sheet identifies the immediate "first aid" actions that should be taken. A medical evaluation should be sought immediately following the exposure. The guidance sheet provides information that medical personnel can reference but does not provide individualized medical care or treatment. This sheet should be printed and taken to the medical provider. Also, display your Columbia University ID card while visiting the medical provider.

**Agent:** Cyanide is typically used in laboratories as a solid, such as sodium cyanide and potassium cyanide. It may also be used in gaseous state as hydrogen cyanide.

**Routes of Exposure:** Inhalation, ingestion, absorption (eyes), dermal contact

**Immediate actions to be taken in the event of an exposure:**

- Inhalation – Remove to fresh air. Remove source of exposure if possible. Seek medical attention.
- Ingestion – SDS typically advises to avoid inducing vomiting; rinse mouth with water and seek immediate medical attention. Washings should be collected and isolated.
- Absorption (eyes) – Rinse eyes cautiously with water at nearest eyewash station for fifteen minutes. Seek medical attention
- Dermal contact – Remove contaminated clothing and rinse affected area at deluge hose or safety shower for 20 minutes, using soap. Apply calcium gluconate first aid gel to affected area immediately after rinsing. Seek medical attention.

**Post-exposure Medical Surveillance:**

If exposure occurs Mon. to Fri., 8:00 am - 4:00 pm: Employees from CUMC, Morningside and Manhattanville campuses go to the Workforce Health and Safety (WHS) clinic located at Harkness Pavilion 1 South 176 Fort Washington Ave (212-305-7590). CUMC students go to Student Health Services at 60 Haven Avenue (212-305-3400). Morningside students go to Columbia Health in the John Jay Building (212-854-7426). For after-hours exposure, go to the New York Presbyterian Hospital or Mount Sinai St. Luke's Hospital (212-523-3335) Emergency Room (ER). Lamont Doherty Earth Observatory Staff should call 9-911 to connect with outside medical staff then call 555 from any campus phone or (845) 359-2900 to notify Safety/Security office to may the emergency responders. Give this sheet to the physician so they understand that you may have just been exposed to formaldehyde, and this is a medical emergency.

**Information to be conveyed to Medical Provider** – In all cases, a copy of the safety data sheet for the material used should be provided. Indicated the rough volume/weight of exposure. If air measurements were taken, provide average concentration to medical provider. Bring a standard cyanide antidotal kit if available.

**Countermeasures/tests available to Physician** – Physician should consult the Agency for Toxic Substances and Disease Registry's guide for Hydrogen Cyanide -<http://www.atsdr.cdc.gov/mmq/mmq.asp?id=1073&tid=19>

- Affected individuals should be decontaminated prior to treatment to avoid secondary exposure. All clothing should be removed and placed in a labeled 6mil polyethylene bag.
- For eye exposures, an ophthalmologist must be consulted. Test visual acuity. Examine the eyes for corneal damage and treat appropriately. Immediately consult an ophthalmologist for patients who have corneal injuries. For inhalation exposure administer a 2.5% calcium gluconate solution as a nebulized treatment with oxygen.
- For dermal exposures, treat burns as thermal burns.
- For ingestion do not induce emesis. If the victim is symptomatic, immediately institute emergency life support measures including the use of a cyanide antidote kit. Washings or vomit should be collected and isolated.



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- Patients who have ingested hydrogen cyanide solutions or patients who have direct skin or eye contact should be observed in the for at least 4 to 6 hours.

**Follow-Up Medical Surveillance** – Consult NIOSH Guidelines. EH&S should conduct full accident investigation and provide follow up exposure monitoring as required and necessary in laboratory.

**Documentation and Reporting** – All exposure incidents must be documented and warrant an accident investigation. Any loss of limb, eye, or admittance into hospital requires a notification to OSHA within 24 hours of incident.

**Additional Resources**

- *Safety Data Sheets* are manufacturer specific and can be printed from ChemWatch - <https://jr.chemwatch.net/chemwatch.web/home>
- NIOSH Guide Reference - <https://www.cdc.gov/niosh/npg/npgd0333.html>
- ATDSR Toxicological Profile for Cyanide - <https://www.atsdr.cdc.gov/toxprofiles/tp8-c3.pdf>

**Contact information:**

*Environmental Health & Safety (EH&S)* - Ask for an Occupational Safety Specialist. Mon. - Fri: 9 am - 5 pm. Medical Center - (212) 305-6780

*Public Safety* can contact an EH&S Occupational Safety Specialist after business hours. Medical Center - (212) 305-7979. Morningside - (212) 854-5555