


Silver Cyanide
SECTION 1 – Chemical Product And Company Identification

SDS Name : Silver Cyanide
Other Name : --
Suggest the use and the restricted use : Use for electroplating and recycling metal. Belong to the dangerous materials and only use for industry and manufacturing procedures. The operator should take the training of safe handling materials at first.
Manufacturer/ Importers /Supplier : SOLAR APPLIED MATERIALS TECHNOLOGY CORP.
Address : No.1, Sec. 2, Huanyuan E. Rd., Liuying Dist., Tainan City 736, Taiwan
Emergency telephone number/ Fax : (Tel) 886-6-6231010 (Fax) 886-6-6234058

SECTION 2 –Hazards Identification

Classification of the substance : Acute Toxic Substances Level 3 (Ingestion), Corrosive / Irritant Skin Level 3, Serious Eye Damage / Irritation Level 2
Symbol : 
Signal word : Danger
Hazard precautionary statement : Class III toxic chemicals: Exposure to chemical substances that will immediately endanger human health or biological life. 1. swallowed poisonous 2. cause minor skin irritation 3. cause severe eye irritation
Hazard precautionary measure : Avoid contact with eyes Wear appropriate protective clothing Do not wear suitable respiratory protection when air is not circulated Can only be used in well-ventilated areas
Other Hazard : --

SECTION 3- Composition, Information On Ingredients

Chemical Name: Silver Cyanide
Synonyms: AgCN
(CAS NO.) : 506-64-9
Percent : above 98%

SECTION 4 - First Aid Measures

First Aid Measures in different exposed way : <ul style="list-style-type: none"> ● Inhalation : 1. Move the patient to fresh air. 2. crush the nitrous oxide in the cloth, carefully under the nose for 15 seconds. 3. every 15 seconds to take a suction, repeated suction 5 times. 4. If breathing stops, give artificial respiration. 5. Give oxygen. ● Skin contact : 1. Remove contaminated clothing, wash the affected area with water and soap, rinse for more than 15-20 minutes until you think it is clean.. ● Eye contact : 1. Immediately remove the lens to wear, exposure to toxic eyes should be washed with plenty of water for 15-20 minutes or more, such as washing after 20 minutes still discomfort, immediately seek medical attention. ● Swallow : 1. Take medicine, take the oxide antidote. 2. If the patient loses consciousness, the amyl nitrite is crushed in the cloth and carefully aspirates 15 seconds in the patient's nose. 3. Give oxygen. When the patient regains consciousness, vomiting..
The most important symptom and harmful effect : The most important symptoms and hazards: can be absorbed by ingestion, inhalation and skin contact, mild poisoning will only cause anxiety, headache, nausea and vomiting. The beginning of the patient will produce blush, heart rate, breathing faster, headache and dizziness, will be carried into restless,



SAFETY DATA SHEET

Silver Cyanide

Coma, asphyxia, whole body convulsions, slow heartbeat, hypotension, pulmonary edema and death, cyanosis occurs in the cycle of disintegration And suffocating symptoms. In the harm effect, the adult lethal dose of 50-300mg.
The protection for first-aid personnel : They should wear C level protective apparatus when they enforce first-aid in the safe region.
Prompt to the doctor : Inhalation of the patient: give oxygen support. In the event of acute lung injury, the patient's breathing and the supply of oxygen are maintained and the patient's arterial blood and pulsed blood oxygen detectors are monitored intensively. Can be used early PEEP (positive end expiratory pressure method) and machine-assisted breathing. When patients are swallowed: give gastric lavage, activated carbon, oxygen. In the event of degeneration of hemoglobinemia, if the patient's symptoms are significantly cyanotic, and the value of denervated heme more than 70% -80%, may consider intravenous injection of methyl blue (dose: 1% methyl blue dose is Per kg of body weight 1-2 mg), or blood replacement surgery. Eye contact: If there is irritation, pain, swelling, tears, photophobia, etc., the patient should continue to be observed in the hospital. If necessary, refer to the inhalation poisoning rescue method. Skin contact: If you wash the affected area still have the feeling of stimulation, you have to check.

SECTION 5- Fire Fighting Measures

The suitable fire-extinguishing chemical : Chemical dry powder, carbon dioxide, sprinkler equipment and general foam
Possible special hazard when fire fighting : 1. Safely remove the container from the fire. 2. Keep away from the tank in the fire. 3. Use sprinkler or mist, do not use water column fire.
Special fire fighting procedure : 1. Disassemble this flammable vapor as it may form an explosive mixture with air. 2. Closed containers may explode. 3. Keep the container out of the fire without compromising the safety of the person.
Fire fighters special protective apparatus : Wear chemistry protective suit and air respirator apparatus. (If required, wear the aluminum coat which can resist flash fire)

SECTION 6- Accidental Release Measures

People need attention : Do not touch or through the leakage of material, without compromising the safety of personnel to try to stop leakage.
Need attention for environment : Rinse the area with water.
Clean method : Use a clean shovel to carefully remove the shovel from its dry and dry container.

SECTION 7- Handling and Storage

Handling : In accordance with relevant laws and regulations.
Storage : 1. Do not touch eyes, skin or clothing. 2. Avoid inhalation of dust. 3. Avoid contact with the acid, so as not to release the gas, due to inhalation may be lethal. 4. Store in airtight containers and keep dry. 5. Store in the poison control area. 6. Isolate the incompatible matter. 7. Unopened product preservation conditions need to be cool (humidity 45 °C ± 5 °C, temperature 15 ~ 30 °C); has been opened within six months to be used as soon as possible to avoid exposure to the atmosphere caused by product abnormalities.

SECTION 8 - Exposure Controls/Personal Protection

Engineering control : Provide fresh air to replenish the exhaust air from the exhaust system.
--

Silver Cyanide

Control parameters:			
8 hours time weighted average exposure limits TWA	Short-term exposure limits STEL	maximum exposure limits biological standards CEILING	BEIs
5mg/m ³ (Skin) to cyanide	10mg/ m ³ (Skin) to cyanide	—	—
Personal protective equipment: (Exposed in the state of pulverulence) Respiratory protection: 1. Not in a well-ventilated condition. 2. If the concentration of air over the allowable amount, should wear self-contained breathing apparatus. Hand protection: Protective gloves Eye protection: 1. Chemical safety goggles. 2. mask. Skin and body protection: 1. Work as soon as possible after taking off the contaminated clothing, washed before they can wear or discard, and must inform the harm of the laundry personnel pollution. 2. Smoking or eating is strictly prohibited in the workplace. 3. After handling this material, wash your hands thoroughly. 4. Keep the workplace clean.			

SECTION 9- Physical and Chemical Properties

physical state: White (light will turn black), solid gas	Odor: Almond taste
Odor threshold: —	Melting point: > 300°C
pH value: N/A	Boiling point/boiling point range: 242 °C
Flammability (solid, gas) : —	Flash point: — °F °C
Decomposition temperature: —	Test method(open cutest/ close cutest): —
Auto-ignition temperature: —	Explosion limits: —
Vapor pressure: N/A	Vapor density: N/A
Density: 3.95 (water=1)	Solubility: < 0.1(water)
Partition coefficient(n-octanol/water,log Kow): —	Evaporation rate: N/A

SECTION 10 - Stability and Reactivity

Stability : Stable under the constant temperature and pressure.
Possible harmful response under special condition : 1. Acid and acid: release flammable and toxic hydrogen cyanide. 2. Strong oxidizing agents (eg nitrates, nitrites, peroxides and chlorates): violent or explosive. 3. Carbon dioxide: Reaction to produce hydrogen cyanide. 4. Water: slow reaction, the formation of hydrogen cyanide. 5. At room temperature fluorine and silver cyanide reaction prone to explosion. 6. With nitrite, perchlorate melting violent explosion occurred. 7. With chlorate is heated to 450 degrees melting the risk of explosion. 8. Corrosion of aluminum metal.
Situation should to be avoided : Light, heat.
Materials to be avoided : 1. Acid and acid salt 2. Strong oxidizer. Carbon dioxide. Water Ammonia. 6. Chlorine
Dangerous products of thermal decomposition : Hydrogen cyanide, nitrogen oxides, carbon monoxide, carbon dioxide.

SECTION 11 - Toxicological Information



SAFETY DATA SHEET

Silver Cyanide

Exposed way : Inhale, skin contact, eye contact and swallow.
Symptom : Redness, loss of consciousness, headache, nausea, vomiting, dizziness, weakness, poor breathing, low blood pressure, spasm.
Acute toxicity : Inhalation: 1. Can cause redness, loss of consciousness, headache, nausea, vomiting, dizziness, weakness, poor breathing, low blood pressure, spasm, and even death. Skin: Severe irritation or burns if skin absorption may cause death. Eyes: Severe irritation or burns. Ingestion: Symptoms with inhalation. LD50 (test animals, absorption pathway): 123 mg / kg (rat, swallowed)
Chronic toxicity or Long-term toxicity : 1. Symptoms include: persistent runny nose, weakness, dizziness, vertigo, headache, nausea, vomiting, abdominal pain, irritation of the throat, altered taste and smell, muscle cramps, weight loss, redness of the face and goiter. 2. But because it is not cyanide poisoning specific symptoms, it is not easy to determine whether the symptoms of cyanide poisoning. 3. Long-term low concentration exposure may also damage the optic nerve. 4.IARC: There is no IARC classification at this time

SECTION 12 - Ecological Information

Ecotoxicol : LC50 (Fish) : — EC50 (aquatic invertebrate) : — Bioconcentration factor (BCF) : — °
Persistent and degradation : Half-life (air) : — Half-life (water surface) : — Half-life (ground water) : — Half-life (soil) : —
Bio-accumulative : Most of the body will be decomposed into lower toxic substances discharged by the urine, a small amount to the prototype by the breathing, sweat, urine excretion.
Soil liquidity : —
Other harmful effect : —

SECTION 13 - DISPOSAL CONSIDERATIONS

Methods of waste disposal: 1. Disposal in accordance with the present laws and regulations. 2. According to the storage conditions for the storage of waste to be processed. 3. Refer to the Waste Disposal Law and the Waste Disposal Methods and Facility Standards for Handling.

SECTION 14 - TRANSPORT INFORMATION

United Nations number(UN No): 1684 UN Proper shipping name: Silver Cyanide Transport hazard class(es): 6. 1 Packing group: II Marine pollutant(Yes/No): Yes Specific transport measures and precautionary conditions: not restricted

SECTION 15 - REGULATORY INFORMATION

Applicable regulations: In accordance with the present laws and regulations.

SECTION 16 - OTHER INFORMATION



SAFETY DATA SHEET

Silver Cyanide

Reference	GHS
Issued by	SOLAR APPLIED MATERIALS TECHNOLOGY CORP.
	Address : No.1, Sec. 2, Huanyuan E. Rd., Liuying Dist., Tainan City 736, Taiwan
Creation date	2022/09/20