




[Mercury\(II\) Cyanide](#)

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Signal Word	Danger
Hazard Statements	H300 +H310 + H330-H373-H410
Hazard Codes	T+,N
Precautionary Statements	P260-P262-P264-P270-P271-P273-P280-P284-P301+P310+P330-P302+P350+P310-P304+P340+P310-P314-P362-P391-P403+P233-P405-P501
Risk Codes	26/27/28-32-50/53
Safety Statements	7-28-29-45-60-61
RTECS Number	OW1515000
Transport Information	UN 1636 6.1/PG II
WGK Germany	3
GHS Pictograms	GHS06 Skull and Crossbones  GHS08 Health Hazard  GHS09 Environment 

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SAFETY DATA SHEET

Date Accessed: 05/16/2024

Date Revised: 01/15/2022

SECTION 1. IDENTIFICATION

Product Identifiers: All applicable American Elements product codes for CAS #592-04-1

Relevant identified uses of the substance:
Scientific research and development

Supplier details:
American Elements
10884 Weyburn Ave.
Los Angeles, CA 90024
Tel: +1 310-208-0551
Fax: +1 310-208-0351

Emergency telephone number:
Domestic, North America +1 800-424-9300
International +1 703-527-3887

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Acute toxicity, Oral (Category 2), H300
Acute toxicity, Inhalation (Category 2), H330
Acute toxicity, Dermal (Category 1), H310

Specific target organ toxicity - repeated exposure
(Category 2), H373

Short-term (acute) aquatic hazard (Category 1), H400

Long-term (chronic) aquatic hazard (Category 1),
H410

For the full text of the H-Statements mentioned in this
Section, see Section 16.

GHS Label elements, including precautionary
statements

Pictogram



Signal: Word Danger

Hazard statement(s)

H300 + H310 + H330 Fatal if swallowed, in contact
with skin or if inhaled.

H373 May cause damage to organs through
prolonged or repeated
exposure.

H410 Very toxic to aquatic life with long lasting
effects.

Precautionary statement(s)

P260 Do not breathe dust/ fume/ gas/ mist/ vapors/
spray.

P262 Do not get in eyes, on skin, or on clothing.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this
product.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing.

P284 Wear respiratory protection.

P301 + P310 + P330 IF SWALLOWED: Immediately
call a POISON CENTER/ doctor.

Rinse mouth.

P302 + P350 + P310 IF ON SKIN: Gently wash with
plenty of soap and water.

Immediately call a POISON CENTER or doctor/
physician.

P304 + P340 + P310 IF INHALED: Remove person to
fresh air and keep comfortable
for breathing. Immediately call a POISON CENTER/
doctor.

P314 Get medical advice/ attention if you feel unwell.

P362 Take off contaminated clothing and wash before
reuse.

P391 Collect spillage.

P403 + P233 Store in a well-ventilated place. Keep
container tightly closed.

P405 Store locked up.

P501 Dispose of contents/ container to an approved
waste disposal
plant.

Hazards not otherwise classified (HNOC) or not covered by GHS
Contact with acids liberates very toxic gas.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances
Synonyms: Mercuric cyanide
Formula: $\text{Hg}(\text{CN})_2$
Molecular weight: 252.62 g/mol
CAS-No.: 592-04-1
EC-No.: 209-741-6

SECTION 4. FIRST AID MEASURES

Description of first-aid measures

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

If swallowed: give water to drink (two glasses at most). Seek medical advice immediately.

In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Carbon oxides

Nitrogen oxides (NO_x)

Mercury/mercury oxides.

Not combustible.

Ambient fire may liberate hazardous vapours.

Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire

extinguishing water from contaminating surface water or the ground water system.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills.

Observe possible material restrictions

(see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area.

Avoid generation of dusts.

Reference to other sections

For disposal see section 13.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Dry. Keep in a well-ventilated place.

Keep locked up or in an area accessible only to qualified or authorized persons.

Do not store near acids.

Light sensitive. hygroscopic

Storage class

Storage class (TRGS 510): 6.1A: Combustible, acute toxic Cat. 1 and 2 / very toxic

hazardous materials

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Appropriate engineering controls

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

Handle with impervious gloves.

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please

contact the supplier of CE-approved gloves

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min
Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Respiratory protection
required when dusts are generated.
Our recommendations on filtering respiratory
protection are based on the following
standards: DIN EN 143, DIN 14387 and other
accompanying standards relating to
the used respiratory protection system.
Control of environmental exposure
Do not let product enter drains.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

- a) Appearance Form: solid
Color: white
- b) Odor No data available
- c) Odor Threshold No data available
- d) pH No data available
- e) Melting
point/freezing point
No data available
- f) Initial boiling point
and boiling range
No data available
- g) Flash point () No data available
- h) Evaporation rate No data available
- i) Flammability (solid,
gas)
No data available
- j) Upper/lower
flammability or
explosive limits
No data available
- k) Vapor pressure No data available
- l) Vapor density No data available
- m) Density 3.996 g/cm³ at 25 °C (77 °F) - lit.
Relative density No data available
- n) Water solubility No data available
- o) Partition coefficient:
n-octanol/water
No data available
- p) Autoignition
temperature
No data available
- q) Decomposition
temperature
No data available

r) Viscosity No data available
s) Explosive properties No data available
t) Oxidizing properties No data available
Other safety information
No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Contact with acids liberates very toxic gas.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Generates dangerous gases or fumes in contact with:

Acids

Conditions to avoid

no information available

Incompatible materials

Strong oxidizing agents, Strong acids

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 26 mg/kg

Remarks: (RTECS)

Acute toxicity estimate Inhalation - 4 h - 0.051 mg/l - dust/mist

(Expert judgment)

Acute toxicity estimate Dermal - 5.1 mg/kg

(Expert judgment)

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No ingredient of this product present at levels greater than or equal to 0.1% is

identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
Reproductive toxicity
No data available
Specific target organ toxicity - single exposure
No data available
Specific target organ toxicity - repeated exposure
May cause damage to organs through prolonged or repeated exposure. Aspiration hazard
No data available
Additional Information
RTECS: OW1515000
May cause cyanosis., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Stomach - Irregularities - Based on Human Evidence
Stomach - Irregularities - Based on Human Evidence

SECTION 12. ECOLOGICAL INFORMATION

Toxicity
No data available
Persistence and degradability
The methods for determining biodegradability are not applicable to inorganic substances.
Bioaccumulative potential
No data available
Mobility in soil
No data available
Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Endocrine disrupting properties
No data available
Other adverse effects
Discharge into the environment must be avoided.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods
Product
Waste material must be disposed of in accordance with the national and local regulations.
Leave chemicals in original containers. No mixing with other waste. Handle uncleaned

containers like the product itself. See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

SECTION 14. TRANSPORT INFORMATION

DOT (US)

UN number: 1636 Class: 6.1 Packing group: II

Proper shipping name: Mercury cyanide

Reportable Quantity (RQ): 1 lbs

Marine pollutant: yes Poison Inhalation Hazard: No

IMDG

UN number: 1636 Class: 6.1 Packing group: II EMS-

No: F-A, S-A

Proper shipping name: MERCURY CYANIDE

Marine pollutant : yes

Marine pollutant : yes

IATA

UN number: 1636 Class: 6.1 Packing group: II

Proper shipping name: Mercury cyanide

SECTION 15. REGULATORY INFORMATION

SARA 302 Components

This material does not contain any components with a section 302 EHS TPQ.

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III,

Section 313:

Mercuric cyanide

CAS-No.

592-04-1

Revision Date

1993-02-16

SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present

state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.
