




Dimethylcadmium		Pricing >
Linear Formula	Cd(CH ₃) ₂	
Pubchem CID	10479	
MDL Number	MFCD00014840	
EC No.	208-055-4	
IUPAC Name	cadmium(2+); carbanide	
Beilstein/Reaxys No.	N/A	
SMILES	C[Cd]C	
Inchl Identifier	InChI=1S/2CH3.Cd/h2*1H3;	
Inchl Key	KVVGSXJGEUULNM-UHFFFAOYSA-N	
Signal Word	Danger	
Hazard Statements	H225-H250-H252-H260-H301-H330-H350-H360	
Hazard Codes	F, T	
Precautionary Statements	P101-P102-P103-P231+P222-P301+P310-P303+P361+P353-P305+P351+P338-P403+P233-P422-P501	
Flash Point	-18 °C	
Risk Codes	N/A	
Safety Statements	N/A	
Transport Information	UN 3394 4.2,4.3/PG I	
GHS Pictograms	GHS02 Flame  GHS06 Skull and Crossbones  GHS08 Health Hazard 	

[Create Printable PDF](#)

SAFETY DATA SHEET

Date Accessed: 04/17/2024

Date Revised: 01/15/2022

SECTION 1. IDENTIFICATION

Product Identifiers: All applicable American Elements product codes for CAS #506-82-1

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

GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.

Self-heat. 2 H252 Self-heating in large quantities; may catch fire.

Water-react. 1 H260 In contact with water releases flammable gases, which may ignite spontaneously.

GHS06 Skull and crossbones

Acute Tox. 2 H300 Fatal if swallowed.

Acute Tox. 2 H330 Fatal if inhaled.

GHS08 Health hazard

Carc. 1A H350 May cause cancer.

Repr. 1A H360 May damage fertility or the unborn child.

GHS label elements

The substance is classified and labeled according to the Globally Harmonized System (GHS).



Hazard pictograms

GHS02 GHS06 GHS08

Signal word Danger

Hazard-determining components of labeling:

Dimethylcadmium, min. 97%

Hazard statements

H225 Highly flammable liquid and vapor.

H252 Self-heating in large quantities; may catch fire.

H260 In contact with water releases flammable gases, which may ignite spontaneously.

H300+H330 Fatal if swallowed or if inhaled.

H350 May cause cancer.

H360 May damage fertility or the unborn child.

Precautionary statements

P231+P232 Handle under inert gas. Protect from moisture.

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

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/
shower.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if

present
and easy to do. Continue rinsing.
P403+P233 Store in a well-ventilated place. Keep
container tightly closed.
P422 Store contents under inert gas.
P501 Dispose of contents/container in accordance
with local/regional/national/international
regulations.
Classification system:
NFPA ratings (scale 0 - 4)
4
4
2
W-
Health = 4
Fire = 4
Reactivity = 2
The substance demonstrates unusual reactivity with
water.
HMIS-ratings (scale 0 - 4)
HEALTH
FIRE
REACTIVITY
*3
4
2
Health = *3
Fire = 4
Reactivity = 2
Other hazards
Results of PBT and vPvB assessment
PBT: N/A
vPvB: N/A

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances
CAS # / Substance Name
506-82-1 Dimethylcadmium, min. 97%
Identification number(s)
EC number: 208-055-4

SECTION 4. FIRST AID MEASURES

Description of first aid measures
General information:
Immediately remove any clothing soiled by the
product.
Remove breathing apparatus only after contaminated
clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.
If inhaled:
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
In case of skin contact: Immediately wash with soap and water; rinse thoroughly.
In case of eye contact: Rinse opened eye for several minutes under running water. Consult a physician.
If swallowed: Do not induce vomiting; immediately call for medical help.
Information for doctor:
Most important symptoms and effects, both acute and delayed:
No data available
Indication of any immediate medical attention and special treatment needed
No data available

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media
Suitable extinguishing agents:
Sand. Do not use water.
CO₂, sand, extinguishing powder. Do not use water.
For safety reasons unsuitable extinguishing agents:
Water with full jet
Special hazards arising from the substance or mixture
During heating or in case of fire poisonous gases are produced.
Advice for firefighters
Protective equipment: Mouth respiratory protective device.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Mount respiratory protective device.
Use personal protective equipment. Keep unprotected persons away.
Environmental precautions:
Do not allow product to enter drains, sewage systems, or other water courses.
Prevent seepage into sewage system, workpits and cellars.
Inform respective authorities in case of seepage into water courses, or sewage systems.
Methods and materials for containment and cleanup:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7. HANDLING AND STORAGE

Handling:
Precautions for safe handling
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
Information about protection against explosions and fires:
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.
Conditions for safe storage, including any incompatibilities:
Requirements to be met by storerooms and receptacles: Store in a cool location.
Information about storage in one common storage facility: Not required.
Further information about storage conditions:
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
Specific end use(s) No data available

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical systems: No further data; see item 7.
Control parameters
Components with limit values that require monitoring at the workplace: Not required.
Additional information: The lists that were valid during the creation were used as basis.
Exposure controls
Personal protective equipment:
General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated

clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use

respiratory protective device that is independent of circulating air.

Protection of hands:

SProtective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the

chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and

varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be

observed.

Eye protection:

RTightly sealed goggles

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance:

Form: Liquid

Color: Colorless

Odor: Pungent

Odor threshold: No data available.

pH: No data available.

Melting point/Melting range: -4.5 °C (24 °F)

Boiling point/Boiling range: 105 °C (221 °F)

Flash point: -18 °C (-0 °F)

Flammability (solid, gas): N/A

Ignition temperature:

Decomposition temperature: No data available.

Autoignition: No data available.

Danger of explosion: No data available.

Explosion limits:

Lower: 1.7 Vol %
Upper: 7.7 Vol %
Vapor pressure: 28mm (20° hPa (21mm (15° mm Hg)
Density at 20 °C (68 °F): 1.985 g/cm³ (16.565 lbs/gal)
(18°)
Relative density No data available.
Vapor density No data available.
Evaporation rate No data available.
Solubility in / Miscibility with
Water: Not miscible or difficult to mix.
Partition coefficient (n-octanol/water): No data
available.
Viscosity:
Dynamic: No data available.
Kinematic: No data available.
Solvent content:
Organic solvents: 0.0 %
VOC content: 0.0 g/l / 0.00 lb/gl
(Contd. on page 6)
US
Other information No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity No data available
Chemical stability
Thermal decomposition / conditions to be avoided: No
decomposition if used according to specifications.
Possibility of hazardous reactions Contact with water
releases flammable gases.
Conditions to avoid No data available
Incompatible materials: No data available
Hazardous decomposition products: No dangerous
decomposition products known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects
Acute toxicity:
Primary irritant effect:
on the skin: No irritant effect.
on the eye: No irritating effect.
Sensitization: No sensitizing effects known.
Additional toxicological information:
Carcinogenic categories
IARC (International Agency for Research on Cancer)
Substance is not listed.
NTP (National Toxicology Program)
Substance is not listed.
OSHA-Ca (Occupational Safety & Health

Administration)
Substance is not listed.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity: No data available

Persistence and degradability No data available

Behavior in environmental systems:

Bioaccumulative potential No data available

Mobility in soil No data available

Additional ecological information: Not known to be hazardous to water.

Results of PBT and vPvB assessment

PBT: N/A

vPvB: N/A

Other adverse effects No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Recommendation:

Must not be disposed of together with household garbage. Do not allow product to enter drains, sewage systems, or other water courses system.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

SECTION 14. TRANSPORT INFORMATION

UN-Number

DOT, IMDG, IATA UN3394

UN proper shipping name

DOT, IATA Organometallic substance, liquid, pyrophoric, water-reactive

IMDG ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC,

WATER- REACTIVE

Transport hazard class(es)

DOT

Class 4.2 Substances liable to spontaneous combustion

Label 4.2, 4.3

IMDG

Class 4.2 Substances liable to spontaneous combustion

Label 4.2/4.3

IATA

Class 4.2 Substances liable to spontaneous combustion
Label 4.2 (4.3)
Packing group
DOT, IMDG, IATA I
Environmental hazards:
Marine pollutant: No
Special precautions for user N/A
EMS Number: F-G,S-M
Stowage Category D
Handling Code H1 Keep as dry as reasonably practicable
Segregation Code SG26 In addition: from goods of classes 2.1 and 3 when stowed on deck of a containership a minimum distance of two container spaces
athwartship shall be maintained, when stowed on ro-ro ships a distance of 6 m athwartship shall be maintained.
SG35 Stow "separated from" acids.
SG63 Stow "separated longitudinally by an intervening complete compartment or hold from" Class 1.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code N/A
Transport/Additional information:
DOT
Quantity limitations On passenger aircraft/rail: Forbidden
On cargo aircraft only: Forbidden
IMDG
Limited quantities (LQ) 0
Excepted quantities (EQ) Code: E0
Not permitted as Excepted Quantity
UN "Model Regulation": UN 3394
ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC, WATER-REACTIVE, 4.2 (4.3), I

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture
Sara
Section 355 (extremely hazardous substances): Substance is not listed.
Section 313 (Specific toxic chemical listings): Substance is not listed.
TSCA (Toxic Substances Control Act): Substance is not listed.
Proposition 65
Chemicals known to cause cancer:

Substance is not listed.
Chemicals known to cause reproductive toxicity for females:
Substance is not listed.
Chemicals known to cause reproductive toxicity for males:
Substance is not listed.
Chemicals known to cause developmental toxicity:
Substance is not listed.
Carcinogenic categories
EPA (Environmental Protection Agency)
Substance is not listed.
TLV (Threshold Limit Value established by ACGIH)
Substance is not listed.
NIOSH-Ca (National Institute for Occupational Safety and Health)
Substance is not listed.
GHS label elements
The substance is classified and labeled according to the Globally Harmonized System (GHS).
Hazard pictograms
GHS02 GHS06 GHS08
Signal word Danger
Hazard-determining components of labeling:
Dimethylcadmium, min. 97%
Hazard statements
H225 Highly flammable liquid and vapor.
H252 Self-heating in large quantities; may catch fire.
H260 In contact with water releases flammable gases, which may ignite spontaneously.
H300+H330 Fatal if swallowed or if inhaled.
H350 May cause cancer.
H360 May damage fertility or the unborn child.
Precautionary statements
P231+P232 Handle under inert gas. Protect from moisture.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/
shower.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P422 Store contents under inert gas.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
National regulations:
Additional classification according to Decree on Hazardous Materials:

Carcinogenic hazardous material group I (extremely dangerous).

Carcinogenic hazardous material group II (very dangerous).

Carcinogenic hazardous material group III (dangerous).

Information about limitation of use:

Workers are not allowed to be exposed to this hazardous material. Exceptions can be made by the authorities in certain cases.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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.
