

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 21.07.2021

Revision: 15.07.2021

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** Dimethylcadmium, elec. gr. (99.995+%Cd) PURATREM
- **Item number:** 97-5040
- **CAS Number:**
506-82-1
- **EC number:**
208-055-4
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Strem Chemicals, Inc.
7 Mulliken Way
NEWBURYPORT, MA 01950
USA
info@strem.com
- **Further information obtainable from:** Technical Department
- **1.4 Emergency telephone number:**
EMERGENCY: CHEMTREC: + 1 (800) 424-9300
During normal opening times: +1 (978) 499-1600

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

- Flam. Liq. 2 H225 Highly flammable liquid and vapour.
- Pyr. Liq. 1 H250 Catches fire spontaneously if exposed to air.
- 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. 3 H301 Toxic if swallowed.
- Acute Tox. 3 H331 Toxic if inhaled.



GHS08 health hazard

- Carc. 1A H350 May cause cancer.
- Repr. 1A H360 May damage fertility or the unborn child.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.

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· **Hazard pictograms**



GHS02 GHS06 GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labelling:**

Dimethylcadmium, min. 97%

· **Hazard statements**

- H225 *Highly flammable liquid and vapour.*
- H250 *Catches fire spontaneously if exposed to air.*
- H252 *Self-heating in large quantities; may catch fire.*
- H260 *In contact with water releases flammable gases which may ignite spontaneously.*
- H301+H331 *Toxic if swallowed or if inhaled.*
- H350 *May cause cancer.*
- H360 *May damage fertility or the unborn child.*

· **Precautionary statements**

- P101 *If medical advice is needed, have product container or label at hand.*
- P102 *Keep out of reach of children.*
- P103 *Read label before use.*
- 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.*

· **Additional information:**

EUH014 Reacts violently with water.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

- **PBT:** *Not applicable.*
- **vPvB:** *Not applicable.*

SECTION 3: Composition/information on ingredients

· **3.1 Chemical characterisation: Substances**

· **CAS No. Description**

506-82-1 Dimethylcadmium, min. 97%

· **Identification number(s)**

· **EC number:** *208-055-4*

SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **General information:**

Immediately remove any clothing soiled by the product.

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Remove breathing equipment only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

· After inhalation:

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

· After skin contact: *Immediately wash with water and soap and rinse thoroughly.*

· After eye contact: *Rinse opened eye for several minutes under running water. Then consult a doctor.*

· After swallowing: *Do not induce vomiting; call for medical help immediately.*

· 4.2 Most important symptoms and effects, both acute and delayed *No further relevant information available.*

· 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

· 5.1 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*

· 5.2 Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced.

· 5.3 Advice for firefighters

· Protective equipment: *Mouth respiratory protective device.*

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

· 6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course.

Prevent seepage into sewage system, workpits and cellars.

Inform respective authorities in case of seepage into water course or sewage system.

· 6.3 Methods and material for containment and cleaning up:

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

· 6.4 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

· 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

· Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

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Protect against electrostatic charges.

Keep respiratory protective device available.

· 7.2 Conditions for safe storage, including any incompatibilities

· Storage:

· 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 container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

· 7.3 Specific end use(s) *No further relevant information available.*

SECTION 8: Exposure controls/personal protection

· Additional information about design of technical facilities: *No further data; see item 7.*

· 8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace: *Not required.*

· Additional information: *The lists valid during the making were used as basis.*

· 8.2 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.

· Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· Protection of hands:



Protective 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:



Tightly sealed goggles

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form: *Liquid*

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Colour:	Colourless
· Odour:	Unpleasant
· Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	105 °C
· Flash point:	-18 °C
· Flammability (solid, gas):	Not determined.
· Ignition temperature:	
Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Spontaneously flammable in air.
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	1.7 Vol %
Upper:	7.7 Vol %
· Vapour pressure:	28 hPa
· Density at 20 °C:	1.985 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	0.0 %
VOC (EC)	0.00 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Contact with water releases flammable gases.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

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SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**
Toxic if swallowed or if inhaled.
- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity**
May cause cancer.
- **Reproductive toxicity**
May damage fertility or the unborn child.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Not known to be hazardous to water.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN3394
- **14.2 UN proper shipping name**
- **ADR** 3394 ORGANOMETALLIC SUBSTANCE, LIQUID,
PYROPHORIC, WATER- REACTIVE

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<ul style="list-style-type: none"> · IMDG · IATA 	<p><i>ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC, WATER- REACTIVE, MARINE POLLUTANT</i></p> <p><i>ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC, WATER- REACTIVE</i></p>
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· **14.3 Transport hazard class(es)**

· **ADR**



<ul style="list-style-type: none"> · Class · Label 	<p>4</p> <p>4.2+4.3</p>
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· **IMDG**



<ul style="list-style-type: none"> · Class · Label 	<p>4.2 Substances liable to spontaneous combustion.</p> <p>4.2/4.3</p>
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· **IATA**



<ul style="list-style-type: none"> · Class · Label 	<p>4.2 Substances liable to spontaneous combustion.</p> <p>4.2 (4.3)</p>
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· **14.4 Packing group**

<ul style="list-style-type: none"> · ADR, IMDG, IATA 	<p>I</p>
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· **14.5 Environmental hazards:**

<ul style="list-style-type: none"> · Marine pollutant: · Special marking (ADR): 	<p>No</p> <p>Symbol (fish and tree)</p> <p>Symbol (fish and tree)</p>
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· **14.6 Special precautions for user**

<ul style="list-style-type: none"> · EMS Number: · Stowage Category · Handling Code · Segregation Code 	<p>Not applicable.</p> <p>F-G,S-M</p> <p>D</p> <p>H1 Keep as dry as reasonably practicable</p> <p>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.</p> <p>SG35 Stow "separated from" acids.</p> <p>SG63 Stow "separated longitudinally by an intervening complete compartment or hold from" Class 1.</p>
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· **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

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· Transport/Additional information:

· ADR

- **Limited quantities (LQ)** 0
- **Excepted quantities (EQ)** Code: E0
Not permitted as Excepted Quantity

· 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

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **Seveso category**
H2 ACUTE TOXIC
P7 PYROPHORIC LIQUIDS AND SOLIDS
O1 Substances or mixtures with hazard statement EUH014
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 40
- **National regulations:**
- **Additional classification according to Decree on Hazardous Materials, Annex II:**
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.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Technical Department.
- **Contact:** Technical Director
- **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic

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vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Pyr. Liq. 1: Pyrophoric liquids – Category 1

Self-heat. 2: Self-heating substances and mixtures – Category 2

Water-react. 1: Substances and mixtures which in contact with water emit flammable gases – Category 1

Acute Tox. 3: Acute toxicity – Category 3

Carc. 1A: Carcinogenicity – Category 1A

Repr. 1A: Reproductive toxicity – Category 1A

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