

SAFETY DATA SHEET

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

1.1. Product identifier

Product Name CGCD10

Product Description 10000 µg/mL: Cadmium

Pure substance/mixture Mixture

Contains Nitric acid; Cadmium and compounds (as Cd)

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Laboratory chemicals

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Company
Inorganic Ventures
300 Technology Drive
Christiansburg, VA 24073
Phone: 1(800) 669-6799
Email: info@inorganicventures.com

1.4. Emergency telephone number

Chemtrec 1-800-424-9300 (North America)

Chemtrec +1 703-741-5970 (International)

Europe	See above
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

*Classification according to
Regulation (EC) No. 1272/2008 [CLP]*

GHS

Acute toxicity - Inhalation (Gases)	Category 4 - (H332)
Acute toxicity - Inhalation (Dusts/Mists)	Category 4 - (H332)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Germ cell mutagenicity	Category 2 - (H341)
Carcinogenicity	Category 1B - (H350)
Reproductive toxicity	Category 2 - (H361fd)
Specific target organ toxicity (repeated exposure)	Category 2 - (H373)
Hazardous to the aquatic environment - chronic	Category 3 - (H412)
Corrosive to metals	Category 1 - (H290)

2.2. Label elements

Product identifier
Contains Nitric acid; Cadmium and compounds (as Cd)

**Signal word**

Danger

Hazard statements

H290 - May be corrosive to metals

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H332 - Harmful if inhaled

H341 - Suspected of causing genetic defects

H350 - May cause cancer

H361 - Suspected of damaging fertility or the unborn child

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

H412 - Harmful to aquatic life with long lasting effects

EUH071 - Corrosive to the respiratory tract

Precautionary Statements - EU (§28, 1272/2008)

P264 - Wash face, hands and any exposed skin thoroughly after handling

P337 + P313 - If eye irritation persists: Get medical advice/attention

P308 + P313 - IF exposed or concerned: Get medical advice/attention

P202 - Do not handle until all safety precautions have been read and understood

P260 - Do not breathe dust, fume, gas, mist, vapors and spray

P314 - Get medical advice/attention if you feel unwell

P501 - Dispose of contents/container to industrial incineration plant

2.3. Other hazards

Other hazards

Toxic to aquatic life

No information available

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

Chemical name	EC No. (Index No.)	CAS No.	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Nitric acid	231-714-2 (007-004-00-1) (007-030-00-3) (078-012-00-0)	7697-37-2	2.1	(EUH071) Skin Corr. 1A (H314) Ox. Liq. 3 (H272) Acute Tox. 3 (H331)	No data available
Cadmium and compounds (as Cd)	231-152-8 (048-002-00-0)	7440-43-9	1	Acute Tox. 2 (H330) Muta. 2 (H341) Carc. 1B (H350) Repr. 2 (H361fd) STOT RE 1 (H372) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	No data available

Full text of H- and EUH-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Remove to fresh air.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Ingestion	Clean mouth with water and drink afterwards plenty of water.

4.2. Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects	Asthma-like and/ or skin allergy-like symptoms.
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4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media

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

Unsuitable Extinguishing Media

No information available

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal Precautions

Ensure adequate ventilation.

Advice for emergency responders

Ensure adequate ventilation.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

See Section 12: ECOLOGICAL INFORMATION.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling
Ensure adequate ventilation.

Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	United Kingdom	France	Spain	Germany DFG	
Nitric acid 7697-37-2	STEL: 1 ppm; STEL: 2.6 mg/m³;	STEL: 1 ppm; STEL: 2.6 mg/m³;	STEL-VLCT (indicatif): 1 ppm; STEL-VLCT (indicatif): 2.6 mg/m³;	STEL (VLA-EC): 1 ppm; STEL (VLA-EC): 2.6 mg/m³;		
Cadmium and compounds (as Cd) 7440-43-9	TWA: 0.001 mg/m³; TWA: 0.004 mg/m³;	TWA: 0.025 mg/m³; STEL: 0.075 mg/m³;	TWA-VME (restrictif): 0.004 mg/m³; inhalable fraction	TWA-(VLA-ED): 0.01 mg/m³; inhalable fraction; non-pyrophoric TWA-(VLA-ED): 0.002 mg/m³; respirable fraction; non-pyrophoric TWA-(VLA-ED): 0.01 mg/m³; pyrophoric TWA-(VLA-ED): 0.002 mg/m³; pyrophoric TWA-(VLA-ED): 0.02 mg/m³; respirable fraction	Sk	
Chemical name	Italy MDLPS	Portugal	Netherlands	Finland	Denmark	
Nitric acid 7697-37-2	STEL: 1 ppm; STEL: 2.6 mg/m³;	TWA (VLE-MP): 2 ppm; STEL (VLE-CD): 1 ppm; STEL (VLE-CD): 2.6 mg/m³;	STEL: 0.5 ppm; STEL: 1.3 mg/m³;	TWA: 0.5 ppm; TWA: 1.3 mg/m³; STEL: 1 ppm; STEL: 2.6 mg/m³;	STEL: 1 ppm; STEL: 2.6 mg/m³;	
Cadmium and compounds (as Cd) 7440-43-9	TWA: 0.001 mg/m³; inhalable fraction TWA: 0.004 mg/m³; inhalable fraction	TWA (VLE-MP): 0.001 mg/m³; inhalable fraction TWA (VLE-MP): 0.004 mg/m³; inhalable fraction	TWA: 0.004 mg/m³;	TWA: 0.004 mg/m³; respirable dust	TWA: 0.001 mg/m³; dust, fume and powder TWA: 0.001 mg/m³; STEL: 0.002 mg/m³; dust, fume and powder STEL: 0.002 mg/m³;	
Chemical name	Sweden	Austria	Switzerland	Poland	Norway	Ireland

Nitric acid 7697-37-2	LLV: 0.5 ppm LLV: 1.3 mg/m ³ Binding STLV: 1 ppm Binding STLV: 2.6 mg/m ³	TWA-TMW: 1 ppm; TWA-TMW: 2.6 mg/m ³ ; STEL-KZGW: 1 ppm (); STEL-KZGW: 2.6 mg/m ³ (); Ceiling: 1 ppm; Ceiling: 2.6 mg/m ³ ;	TWA-MAK: 2 ppm; TWA-MAK: 5 mg/m ³ ; STEL-KZGW: 2 ppm; STEL-KZGW: 5 mg/m ³ ;	TWA-NDS: 1.4 mg/m ³ ; STEL-NDSCh: 2.6 mg/m ³ ;	TWA: 2 ppm; TWA: 5 mg/m ³ ; STEL: 4 ppm (value calculated); STEL: 10 mg/m ³ (value calculated);	STEL: 1 ppm; STEL: 2.6 mg/m ³ ;
Cadmium and compounds (as Cd) 7440-43-9	LLV: 0.02 mg/m ³ LLV: 0.005 mg/m ³	TWA-TMW: 0.004 mg/m ³ ; inhalable fraction TWA-TMW: 0.001 mg/m ³ ; inhalable fraction STEL-KZGW: 0.016 mg/m ³ (4 x 15 min); inhalable fraction STEL-KZGW: 0.004 mg/m ³ (4 x 15 min); inhalable fraction C	TWA-MAK: 0.001 mg/m ³ ; inhalable dust Sk	TWA-NDS: 0.004 mg/m ³ ; inhalable fraction	TWA: 0.001 mg/m ³ ; inhalable fraction STEL: 0.003 mg/m ³ (value calculated); inhalable fraction STEL: 0.003 mg/m ³ (value calculated; except Cadmium oxide); inhalable fraction	TWA: 0.001 mg/m ³ ; inhalable fraction TWA: 0.004 mg/m ³ ; inhalable fraction TWA: 0.001 mg/m ³ ; inhalable fraction TWA: 0.004 mg/m ³ ; inhalable fraction STEL: 0.003 mg/m ³ (calculated); inhalable fraction STEL: 0.012 mg/m ³ (calculated; applies until 11 July 2027); inhalable fraction STEL: 0.012 mg/m ³ (calculated; applies until July 11, 2027); STEL: 0.03 mg/m ³ (calculated);

Chemical name	European Union	United Kingdom	France	Spain	Germany TRGS
Cadmium and compounds (as Cd) 7440-43-9			0.005 mg/g creatinine - urine (Cadmium) - not critical 0.004 mg/L - blood (Cadmium) - not critical 4 µg/L - blood (Cadmium) - not critical	2 µg/g Creatinine (urine - Cadmium not critical) 5 µg/L (blood - Cadmium not critical)	
Component	Italy MDLPS	Portugal	Netherlands	Finland	Denmark
Cadmium and compounds (as Cd) 7440-43-9 (1)				20 nmol/L (urine - Cadmium at the end of a working week; time of day does not matter)	
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Cadmium and compounds (as Cd) 7440-43-9	2.5 µg/g Creatinine - urine (N-Acetylglucosaminidase) - not provided	2 µg/g creatinine (urine - Cadmium no restrictions) 2.01 nmol/mmol creatinine (urine - Cadmium no restrictions)			2 µg/g Creatinine (urine - not critical) 2 µg/g Creatinine (urine - Cadmium not critical)

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering Measures

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/Face Protection

Wear safety glasses with side shields (or goggles).

Hand Protection

Impervious gloves.

Skin and Body Protection

Long sleeved clothing.

Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate

certified respirators.

Environmental Exposure Controls No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	clear /colorless
Odor	Odorless
pH - VALUE 1	No data available
Melting point / melting range	No data available
Initial boiling point and boiling range	100 °C / 212 °F
Vapor pressure @20 °C (kPa)	No data available
Relative vapor density	No data available
Relative Density	No data available
Specific gravity - VALUE 1	No data available
Water solubility	Miscible
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Dynamic viscosity - VALUE 1	No data available
Explosive properties	No information available
Oxidizing Properties	No information available
VOC content	No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

10.3. Possibility of hazardous reactions

Hazardous polymerization

None under normal processing.

Hazardous Reactions

None under normal processing.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Bases Cyanides

10.6. Hazardous decomposition products

Nitrogen oxides (NOx).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute Toxicity

Product Information	Product does not present an acute toxicity hazard based on known or supplied information.
Inhalation	No data available.
Eye Contact	No data available.
Skin Contact	No data available.
Ingestion	No data available.

The following ATE values have been calculated for the mixture

ATEmix (inhalation-gas)	10,001.00 ppm
ATEmix (inhalation-dust/mist)	4.1405 mg/l
ATEmix (inhalation-vapor)	35.862 mg/l

Unknown acute toxicity

- 2.1 % of the mixture consists of ingredient(s) of unknown acute toxicity.
- 2.1 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
- 2.1 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
- 2.1 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
- 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).
- 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Component Information

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Sensitization	No information available.
Mutagenic Effects	No information available.

Carcinogenic effects

Chemical name	European Union
Cadmium and compounds (as Cd)	Carc. 1B

Reproductive Toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects

Contains 0 % of components with unknown hazards to the aquatic environment

Chemical name	Algae/aquatic plants	Fish	Crustacea
Cadmium and compounds (as Cd)		LC50: =0.003mg/L (96h, Oncorhynchus mykiss) LC50: =0.006mg/L (96h, Oncorhynchus mykiss) LC50: =0.002mg/L (96h, Cyprinus carpio) LC50: =4.26mg/L (96h, Cyprinus carpio) LC50: =0.24mg/L (96h, Cyprinus carpio) LC50: =21.1mg/L (96h, Lepomis macrochirus) LC50: =0.016mg/L (96h, Oryzias latipes) LC50: 0.0004 - 0.003mg/L (96h, Pimephales promelas)	EC50: =0.0244mg/L (48h, Daphnia magna)

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

Chemical name	Partition coefficient
Nitric acid	-2.3

12.4. Mobility in soil**Mobility in soil**

No information available.

12.5. Results of PBT and vPvB assessment

No information available.

Chemical name	PBT and vPvB assessment
Nitric acid	Not PBT/vPvB
Cadmium and compounds (as Cd)	PBT assessment does not apply

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods**Waste from Residues/Unused Products**

Dispose of in accordance with federal, state and local regulations.

Contaminated Packaging

Do not reuse empty containers.

Other information

Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

IMDG

14.1. UN-No	UN3264
14.2. Proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s
14.3. Transport hazard class(es)	8
14.4. Packing Group	III
Description	Not applicable
14.5. Marine Pollutant	None
14.6. Special Provisions	None
No information available in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

RID

14.1. UN-No	UN3264
14.2. Proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s
14.3. Transport hazard class(es)	8
14.4. Packing Group	III
Description	Not applicable
14.5. Environmental hazard	None
14.6. Special Provisions	None

ADR

14.1. UN-No	UN3264
14.2. Proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s
14.3. Transport hazard class(es)	8
14.4. Packing Group	III
Description	Not applicable
14.5. Environmental hazard	None
14.6. Special Provisions	None

ICAO

14.1. UN-No	UN3264
14.2. Proper Shipping Name	Corrosive liquid, acidic, inorganic, n.o.s
14.3. Hazard Class	8
14.4. Packing Group	III
Description	Not applicable
14.5. Environmental hazard	None
14.6. Special Provisions	None

IATA-DGR

14.1. UN-No	UN3264
14.2. Proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s
14.3. Transport hazard class(es)	8
14.4. Packing Group	III
Description	Not applicable
14.5. Environmental hazard	None
14.6. Special Provisions	None

SECTION 15: Regulatory information

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

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

International Inventories

All of the components in the product are on the following Inventory lists: U.S.A. (TSCA), Europe (EINECS/ELINCS/NLP), Canada (DSL/NDSL), Philippines (PICCS), Japan (ENCS), China (IECSC), Australia (AICS), Korea (ECL).

TSCA	Complies
EINECS/ELINCS	Complies
DSL/NDSL	Complies
PICCS	Complies
ENCS	Complies
IECSC	Complies
AIC	Complies
KECL	Complies

Legend

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
AICS - Australian Inventory of Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances

15.2. Chemical safety assessment

No information available

SECTION 16: Other information

Full text of R-phrases referred to under sections 2 and 3

No information available

Full text of any hazard and/or precautionary statements referred to under Sections 2-15

EUH071 - Corrosive to the respiratory tract
H272 - May intensify fire; oxidizer
H314 - Causes severe skin burns and eye damage
H330 - Fatal if inhaled
H331 - Toxic if inhaled
H341 - Suspected of causing genetic defects
H350 - May cause cancer
H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child
H372 - Causes damage to organs through prolonged or repeated exposure
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Revision date 20-Mar-2026

Reason for Revision Not applicable.

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet