



# SAFETY DATA SHEET

**MATERION**

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

### 1.1. Product identifier

**Name of the substance** Cadmium (Cd) powder  
**Identification number** 231-152-8 (EC number)  
**Registration number** -  
**Document number** 1EI  
**Synonyms** None.  
**Materion Code** 1EI  
**Issue date** 10-February-2014  
**Revision date** 10-January-2018

### 1.3. Details of the supplier of the safety data sheet

#### Supplier

**Company name** Materion Advanced Chemicals Inc.  
**Address** 407 N. 13th Street  
1316 W. St. Paul Avenue  
Milwaukee, WI 53233  
United States  
**Division** Milwaukee  
**Telephone** 414.212.0257  
**e-mail** advancedmaterials@materion.com  
**Contact person** Laura Hamilton

### 1.4. Emergency telephone number

**Supersedes date** 14-July-2015  
**Version number** 04

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

**Identified uses** Not available.  
**Uses advised against** None known.

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

The substance has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

#### Classification according to Regulation (EC) No 1272/2008 as amended

##### Health hazards

Acute toxicity, oral	Category 3	H301 - Toxic if swallowed. H301 - Toxic if swallowed.
Carcinogenicity	Category 1A	H350 - May cause cancer. H350 - May cause cancer.

##### Environmental hazards

Hazardous to the aquatic environment, acute aquatic hazard	Category 1 M-factor = 1000.	H400 - Very toxic to aquatic life.
Hazardous to the aquatic environment, long-term aquatic hazard	Category 1	H410 - Very toxic to aquatic life with long lasting effects.

**Hazard summary** Toxic if swallowed. Toxic if swallowed. May cause cancer. May cause cancer. Prolonged exposure may cause chronic effects. Dangerous for the environment if discharged into watercourses.

### 2.2. Label elements

#### Label according to Regulation (EC) No. 1272/2008 as amended

**Contains:** Cadmium

## Hazard pictograms



## Signal word

Danger

## Hazard statements

H301	Toxic if swallowed.
H301	Toxic if swallowed.
H350	May cause cancer.
H350	May cause cancer.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

## Precautionary statements

### Prevention

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

### Response

P301 + P310	IF SWALLOWED: Immediately call a POISON CENTRE/doctor.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P321	Specific treatment (see this label).
P330	Rinse mouth.
P391	Collect spillage.

### Storage

P405	Store locked up.
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### Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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## Supplemental label information

None.

## 2.3. Other hazards

None known.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

#### General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Cadmium	90 - 100	7440-43-9 231-152-8	-	-	
<b>Classification:</b>	Acute Tox. 3;H301, Carc. 1A;H350, Aquatic Acute 1;H400(M=1000), Aquatic Chronic 1;H410				

#### List of abbreviations and symbols that may be used above

CLP: Regulation No. 1272/2008.

DSD: Directive 67/548/EEC.

M: M-factor

vPvB: very persistent and very bioaccumulative substance.

PBT: persistent, bioaccumulative and toxic substance.

#: This substance has been assigned Community workplace exposure limit(s).

#### Composition comments

The full text for all R- and H-phrases is displayed in section 16.

## SECTION 4: First aid measures

### General information

In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

### 4.1. Description of first aid measures

#### Inhalation

Move to fresh air. Call a physician if symptoms develop or persist.

#### Skin contact

Wash off with soap and water. Get medical attention if irritation develops and persists.

**Eye contact**

Rinse with water. Get medical attention if irritation develops and persists.

**Ingestion**

Call a physician or poison control centre immediately. Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

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

Headache. Nausea, vomiting. Diarrhoea.

**4.3. Indication of any immediate medical attention and special treatment needed**

Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

**SECTION 5: Firefighting measures****General fire hazards**

No unusual fire or explosion hazards noted.

**5.1. Extinguishing media****Suitable extinguishing media**

Powder. Dry sand.

**Unsuitable extinguishing media**

None known.

**5.2. Special hazards arising from the substance or mixture**

During fire, gases hazardous to health may be formed.

**5.3. Advice for firefighters****Special protective equipment for firefighters**

Wear suitable protective equipment.

**Special firefighting procedures**

Use water spray to cool unopened containers. Water runoff can cause environmental damage.

**Specific methods**

Use standard firefighting procedures and consider the hazards of other involved materials.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Immediately evacuate personnel to safe areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

**For emergency responders**

Keep unnecessary personnel away.

**6.2. Environmental precautions**

Avoid release to the environment. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

**6.3. Methods and material for containment and cleaning up**

The product is immiscible with water and will spread on the water surface.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent product from entering drains. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

**6.4. Reference to other sections**

Not available.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Provide adequate ventilation. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains. Observe good industrial hygiene practices.

**7.2. Conditions for safe storage, including any incompatibilities**

Store locked up. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container.

**7.3. Specific end use(s)**

Not available.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Occupational exposure limits****Austria. TRK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001**

Material	Type	Value	Form
Cadmium (CAS 7440-43-9)	STEL	0,06 mg/m <sup>3</sup>	Inhalable fraction.
	TWA	0,015 mg/m <sup>3</sup>	Inhalable fraction.

**Belgium. Exposure Limit Values.**

Material	Type	Value	Form
Cadmium (CAS 7440-43-9)	TWA	0,01 mg/m <sup>3</sup>	Inhalable particles.
		0,002 mg/m <sup>3</sup>	Respirable particles.

**Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work**

Material	Type	Value
Cadmium (CAS 7440-43-9)	TWA	0,05 mg/m <sup>3</sup>

**Croatia. Dangerous Substance Exposure Limit Values in the Workplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/09**

Material	Type	Value
Cadmium (CAS 7440-43-9)	MAC	0,025 mg/m <sup>3</sup>

**Cyprus. OELs. Control of factory atmosphere and dangerous substances in factories regulation, PI 311/73, as amended.**

Material	Type	Value	Form
Cadmium (CAS 7440-43-9)	TWA	0,05 mg/m <sup>3</sup>	Dust.

**Czech Republic. OELs. Government Decree 361**

Material	Type	Value
Cadmium (CAS 7440-43-9)	Ceiling	0,1 mg/m <sup>3</sup>
	TWA	0,05 mg/m <sup>3</sup>

**Denmark. Exposure Limit Values**

Material	Type	Value	Form
Cadmium (CAS 7440-43-9)	TLV	0,005 mg/m <sup>3</sup>	Dust and fume.

**Estonia. OELs. Occupational Exposure Limits of Hazardous Substances. (Annex of Regulation No. 293 of 18 September 2001)**

Material	Type	Value	Form
Cadmium (CAS 7440-43-9)	TWA	0,05 mg/m <sup>3</sup>	Total dust.
		0,01 mg/m <sup>3</sup>	Respirable dust.

**Finland. Workplace Exposure Limits**

Material	Type	Value
Cadmium (CAS 7440-43-9)	TWA	0,02 mg/m <sup>3</sup>

**France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984**

Material	Type	Value
Cadmium (CAS 7440-43-9)	VME	0,05 mg/m <sup>3</sup>

**Greece. OELs (Decree No. 90/1999, as amended)**

Material	Type	Value
Cadmium (CAS 7440-43-9)	STEL	0,1 mg/m <sup>3</sup>
	TWA	0,025 mg/m <sup>3</sup>

**Hungary. OELs. Joint Decree on Chemical Safety of Workplaces**

Material	Type	Value
Cadmium (CAS 7440-43-9)	Ceiling	0,015 mg/m <sup>3</sup>

**Iceland. OELs. Regulation 154/1999 on occupational exposure limits**

Material	Type	Value	Form
Cadmium (CAS 7440-43-9)	TWA	0,01 mg/m <sup>3</sup>	Dust and fume.

**Ireland. Occupational Exposure Limits**

Material	Type	Value
Cadmium (CAS 7440-43-9)	TWA	0,025 mg/m <sup>3</sup>

**Italy. Occupational Exposure Limits**

Material	Type	Value
Cadmium (CAS 7440-43-9)	TWA	0,01 mg/m <sup>3</sup>

**Latvia. OELs. Occupational exposure limit values of chemical substances in work environment**

Material	Type	Value
Cadmium (CAS 7440-43-9)	STEL	0,05 mg/m <sup>3</sup>
	TWA	0,01 mg/m <sup>3</sup>

**Lithuania. OELs. Limit Values for Chemical Substances, General Requirements**

Material	Type	Value	Form
Cadmium (CAS 7440-43-9)	TWA	0,05 mg/m <sup>3</sup>	Inhalable fraction.
		0,01 mg/m <sup>3</sup>	Respirable fraction.

**Norway. Administrative Norms for Contaminants in the Workplace**

Material	Type	Value
Cadmium (CAS 7440-43-9)	TLV	0,05 mg/m <sup>3</sup>

**Ordinance of the Minister of Labour and Social Policy on 6 June 2014 on the maximum permissible concentrations and intensities of harmful health factors in the work environment, Journal of Laws 2014, item 817**

Material	Type	Value	Form
Cadmium (CAS 7440-43-9)	TWA	0,01 mg/m <sup>3</sup>	Inhalable fraction.
		0,002 mg/m <sup>3</sup>	Respirable fraction.

**Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)**

Material	Type	Value	Form
Cadmium (CAS 7440-43-9)	TWA	0,01 mg/m <sup>3</sup>	Respirable fraction.
		0,002 mg/m <sup>3</sup>	

**Romania. OELs. Protection of workers from exposure to chemical agents at the workplace**

Material	Type	Value
Cadmium (CAS 7440-43-9)	TWA	0,05 mg/m <sup>3</sup>

**Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)**

Material	Type	Value	Form
Cadmium (CAS 7440-43-9)	TWA	0,015 mg/m <sup>3</sup>	Dust/aerosol, inhalable.

**Spain. Carcinogens and Mutagens with Limit Values (Table 2)**

Material	Type	Value	Form
Cadmium (CAS 7440-43-9)	TWA	0,01 mg/m <sup>3</sup>	Inhalable fraction.
		0,002 mg/m <sup>3</sup>	Respirable fraction.

**Sweden. OELs. Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2015:7)**

Material	Type	Value	Form
Cadmium (CAS 7440-43-9)	TWA	0,02 mg/m <sup>3</sup>	Total dust.
		0,005 mg/m <sup>3</sup>	Respirable dust.

**Switzerland. SUVA Grenzwerte am Arbeitsplatz**

Material	Type	Value	Form
Cadmium (CAS 7440-43-9)	TWA	0,015 mg/m <sup>3</sup>	Inhalable dust.

**UK. EH40 Workplace Exposure Limits (WELs)**

Material	Type	Value
Cadmium (CAS 7440-43-9)	TWA	0,025 mg/m <sup>3</sup>

**Biological limit values****Czech Republic. Limit Values for Indicators of Biological Exposure Tests in Urine and Blood, Annex 2, Tables 1 and 2, Government Decree 432/2003 Sb.**

Material	Value	Determinant	Specimen	Sampling Time
Cadmium (CAS 7440-43-9)	0,045 µmol/l	Cadmium	Blood	*
	0,005 µmol/mmol	Cadmium	Creatinine in urine	*
	0,005 mg/g	Cadmium	Creatinine in urine	*
	0,005 mg/l	Cadmium	Blood	*

\* - For sampling details, please see the source document.

**France. Biological indicators of exposure (IBE) (National Institute for Research and Security (INRS, ND 2065)**

Material	Value	Determinant	Specimen	Sampling Time
Cadmium (CAS 7440-43-9)	5 µg/g	Cadmium	Creatinine in urine	*
	5 µg/l	Cadmium	Blood	*

\* - For sampling details, please see the source document.

**Hungary. Chemical Safety at Workplace Ordinance Joint Decree No. 25/2000 (Annex 2): Permissible limit values of biological exposure (effect) indices**

Material	Value	Determinant	Specimen	Sampling Time
Cadmium (CAS 7440-43-9)	10 µg/l	cadmium	Blood	*
	0,01 mg/g	cadmium	Creatinine in urine	*
	0,09 µmol/l	cadmium	Blood	*
	0,01 µmol/mmol	cadmium	Creatinine in urine	*

\* - For sampling details, please see the source document.

**Slovakia. BLVs (Biological Limit Value). Regulation no. 355/2006 concerning protection of workers exposed to chemical agents, Annex 2**

Material	Value	Determinant	Specimen	Sampling Time
Cadmium (CAS 7440-43-9)	4,7 µg/g	Cadmium	Creatinine in urine	*
	7 µg/l	Cadmium	Urine	*

\* - For sampling details, please see the source document.

**Spain. Biological Limit Values (VLBs), Occupational Exposure Limits for Chemical Agents, Table 4**

Material	Value	Determinant	Specimen	Sampling Time
Cadmium (CAS 7440-43-9)	5 µg/g	Cadmio	Creatinine in urine	*
	5 µg/l	Cadmio	Blood	*

\* - For sampling details, please see the source document.

**Switzerland. BAT-Werte (Biological Limit Values in the Workplace as per SUVA)**

Material	Value	Determinant	Specimen	Sampling Time
Cadmium (CAS 7440-43-9)	5 µg/g	Cadmium	Creatinine in urine	*

\* - For sampling details, please see the source document.

**Recommended monitoring procedures** Follow standard monitoring procedures.

**Derived no effect levels (DNELs)** Not available.

**Predicted no effect concentrations (PNECs)** Not available.

## 8.2. Exposure controls

**Appropriate engineering controls** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

### Individual protection measures, such as personal protective equipment

**General information** Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

**Eye/face protection** Use personal protective equipment as required.

#### Skin protection

**- Hand protection** Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

**- Other** Use personal protective equipment as required. Use of an impervious apron is recommended. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

**Respiratory protection** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

**Hygiene measures** Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**Environmental exposure controls** Contain spills and prevent releases and observe national regulations on emissions. Inform appropriate managerial or supervisory personnel of all environmental releases.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

**Physical state** Solid.

**Form** Solid.

**Colour** Not available.

**Odour** Not available.

**Odour threshold** Not available.

**pH** Not available.

**Melting point/freezing point** 321 °C (609,8 °F)

**Initial boiling point and boiling range** 765 °C (1409 °F)

**Flash point** Not available.

**Evaporation rate** Not available.

**Flammability (solid, gas)** Not available.

#### Upper/lower flammability or explosive limits

**Flammability limit - lower (%)** Not available.

**Flammability limit - upper (%)** Not available.

**Vapour pressure** < 0,0000001 kPa at 25 °C

**Vapour density** Not available.

**Relative density** Not available.

#### Solubility(ies)

**Solubility (water)** Insoluble

**Partition coefficient (n-octanol/water)** Not available.

**Auto-ignition temperature** 250 °C (482 °F)

**Decomposition temperature** Not available.

**Viscosity** Not available.

<b>Explosive properties</b>	Not explosive.
<b>Oxidising properties</b>	Not oxidising.
<b>9.2. Other information</b>	
<b>Density</b>	8,65 g/cm <sup>3</sup> at 25 °C
<b>Molecular formula</b>	Cd
<b>Molecular weight</b>	112,41 g/mol
<b>Specific gravity</b>	8,65

## SECTION 10: Stability and reactivity

<b>10.1. Reactivity</b>	Not available.
<b>10.2. Chemical stability</b>	Material is stable under normal conditions.
<b>10.3. Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>10.4. Conditions to avoid</b>	Contact with incompatible materials.
<b>10.5. Incompatible materials</b>	Strong oxidising agents.
<b>10.6. Hazardous decomposition products</b>	No hazardous decomposition products are known.

## SECTION 11: Toxicological information

**General information** Occupational exposure to the substance or mixture may cause adverse effects.

### Information on likely routes of exposure

<b>Inhalation</b>	Prolonged inhalation may be harmful.
<b>Skin contact</b>	Due to lack of data the classification is not possible.
<b>Eye contact</b>	Due to lack of data the classification is not possible.
<b>Ingestion</b>	Toxic if swallowed.

**Symptoms** Headache. Nausea, vomiting. Diarrhoea.

### 11.1. Information on toxicological effects

**Acute toxicity** Toxic if swallowed. Toxic if swallowed.

Product	Species	Test Results
Cadmium (CAS 7440-43-9)		
<b>Acute</b>		
<b>Inhalation</b>		
LC50	Rat	0,025 mg/l, 900 Days
<b>Oral</b>		
LD50	Mouse	890 mg/kg
	Rat	225 mg/kg

\* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation** Due to partial or complete lack of data the classification is not possible.

**Serious eye damage/eye irritation** Due to partial or complete lack of data the classification is not possible.

**Respiratory sensitisation** Due to partial or complete lack of data the classification is not possible.

**Skin sensitisation** Due to partial or complete lack of data the classification is not possible.

**Germ cell mutagenicity** Due to partial or complete lack of data the classification is not possible.

**Carcinogenicity** May cause cancer. May cause cancer.

### Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)

Cadmium (CAS 7440-43-9)

### IARC Monographs. Overall Evaluation of Carcinogenicity

Cadmium (CAS 7440-43-9) 1 Carcinogenic to humans.

**Reproductive toxicity** Due to partial or complete lack of data the classification is not possible.

**Specific target organ toxicity - single exposure** Due to partial or complete lack of data the classification is not possible.

**Specific target organ toxicity - repeated exposure** Due to partial or complete lack of data the classification is not possible.

**Aspiration hazard** Due to partial or complete lack of data the classification is not possible.



**Mixture versus substance information** No information available.

**Other information** Not available.

## SECTION 12: Ecological information

**12.1. Toxicity** Very toxic to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.

Product	Species	Test Results
Cadmium (CAS 7440-43-9)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea (Daphnia magna) 0,0491 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss) 0,0024 - 0,0029 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

**12.2. Persistence and degradability** No data is available on the degradability of this product.

**12.3. Bioaccumulative potential** No data available.

**Partition coefficient n-octanol/water (log Kow)** Not available.

**Bioconcentration factor (BCF)** Not available.

**12.4. Mobility in soil** No data available.

**12.5. Results of PBT and vPvB assessment** Not a PBT or vPvB substance or mixture.

**12.6. Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 12.7. Additional information

#### Estonia Dangerous substances in groundwater Data

Cadmium (CAS 7440-43-9) CADMIUM (CD) 1 ug/l  
CADMIUM (CD) 10 ug/l

#### Estonia Dangerous substances in soil Data

Cadmium (CAS 7440-43-9) CADMIUM (CD) 1 mg/kg  
CADMIUM (CD) 20 mg/kg  
CADMIUM (CD) 5 mg/kg

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Residual waste** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

**EU waste code** The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Disposal methods/information** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Special precautions** Dispose in accordance with all applicable regulations.

## SECTION 14: Transport information

### ADR

**14.1. UN number** UN3089

**14.2. UN proper shipping name** Metal powders, flammable, n.o.s.

**14.3. Transport hazard class(es)**

**Class** 4.1

**Subsidiary risk** -

**Label(s)** 4.1

**Hazard No. (ADR)** Not available.  
**Tunnel restriction code** Not available.  
**14.4. Packing group** III  
**14.5. Environmental hazards** No.  
**14.6. Special precautions for user** Not available.

#### RID

**14.1. UN number** UN3089  
**14.2. UN proper shipping name** Metal powders, flammable, n.o.s.  
**14.3. Transport hazard class(es)**  
**Class** 4.1  
**Subsidiary risk** -  
**Label(s)** 4.1  
**14.4. Packing group** III  
**14.5. Environmental hazards** No.  
**14.6. Special precautions for user** Not available.

#### ADN

**14.1. UN number** UN3089  
**14.2. UN proper shipping name** Metal powders, flammable, n.o.s.  
**14.3. Transport hazard class(es)**  
**Class** 4.1  
**Subsidiary risk** -  
**Label(s)** 4.1  
**14.4. Packing group** III  
**14.5. Environmental hazards** No.  
**14.6. Special precautions for user** Not available.

#### IATA

**14.1. UN number** UN3089  
**14.2. UN proper shipping name** Metal powders, flammable, n.o.s.  
**14.3. Transport hazard class(es)**  
**Class** 4.1  
**Subsidiary risk** -  
**Label(s)** 4.1  
**14.4. Packing group** III  
**14.5. Environmental hazards** No.  
**14.6. Special precautions for user** Not available.

#### IMDG

**14.1. UN number** UN3089  
**14.2. UN proper shipping name** Metal powders, flammable, n.o.s.  
**14.3. Transport hazard class(es)**  
**Class** 4.1  
**Subsidiary risk** -  
**Label(s)** 4.1  
**14.4. Packing group** III  
**14.5. Environmental hazards**  
**Marine pollutant** No.  
**EmS** Not available.  
**14.6. Special precautions for user** Not available.



## SECTION 15: Regulatory information

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

#### EU regulations

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended**

Not listed.

**Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended**

Cadmium (CAS 7440-43-9)

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended**

Not listed.

**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended**

Cadmium (CAS 7440-43-9)

**Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA**

Cadmium (CAS 7440-43-9)

#### Authorisations

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended**

Not listed.

#### Restrictions on use

**Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended**

Cadmium (CAS 7440-43-9)

**Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.**

Cadmium (CAS 7440-43-9)

#### Other EU regulations

**Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended**

Cadmium (CAS 7440-43-9)

#### Other regulations

The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006. This product is not in compliance with Directive 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronics equipment (RoHS).

#### National regulations

Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work. Follow national regulation for work with chemical agents.

### 15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

## SECTION 16: Other information

#### List of abbreviations

Not available.

#### References

Not available.

#### Training information

Follow training instructions when handling this material.

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