

## Material Safety Data Sheet According to 91/155 EEC

Printing date 02.04.2007

version number 11

Reviewed on 02.04.2007

### 1 Identification of the substance/preparation and of the company/undertaking

\*Trade name: CADMIUM ICP STANDARD SOLUTION

\*Article number: PCD2A2

\*Application of the substance / the preparation Laboratory chemicals

\*Manufacturer/Supplier:  
Reagecon Diagnostics Ltd.  
Shannon Free Zone,  
Shannon,  
Co. Clare,  
IRL.

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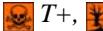
\*Further information obtainable from: EMERGENCY CONTACT NUMBER :- 353-87-7828692

### 2 Composition/information on ingredients

\*Chemical characterization

\*Description: Mixture of substances listed below with nonhazardous additions.

\*Dangerous components:

CAS: 7697-37-2 EINECS: 231-714-2	nitric acid	 C, O; R 8-35	≤ 2.5%
CAS: 7440-43-9 EINECS: 231-152-8	cadmium (non-pyrophoric)	 T+, N; R 45-26-48/23/25-62-68-50/53-63	≤ 2.5%

\*Additional information: For the wording of the listed risk phrases refer to section 16.

### 3 Hazards identification

\*Hazard description:



T Toxic

\*Information concerning to particular hazards to man and environment:

The product has been classified and labelled in accordance with EU Directive 99/45/EC and all other EU Directives referred to therein.

R 49 May cause cancer by inhalation.

R 36/38 Irritating to eyes and skin.

\*Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

### 4 First-aid measures

\*After inhalation: In case of unconsciousness place patient stably in side position for transportation.

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

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**\*After eye contact:***Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.***\*After swallowing:** *If symptoms persist consult doctor.*

### 5 Fire-fighting measures

**\*Suitable extinguishing agents:***CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.***\*Protective equipment:** *No special measures required.*

### 6 Accidental release measures

**\*Person-related safety precautions:** *Not required.***\*Measures for environmental protection:***Dilute with plenty of water.**Do not allow to enter sewers/ surface or ground water.***\*Measures for cleaning/collecting:***Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).**Dispose contaminated material as waste according to item 13.**Ensure adequate ventilation.*

### 7 Handling and storage

**\*Handling:PPE to be worn. See section 8****\*Information 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 respiratory protective device available.***\*Storage:****\*Requirements to be met by storerooms and receptacles:** *No special requirements.***\*Information about storage in one common storage facility:** *Not required.***\*Further information about storage conditions:** *Keep receptacle tightly sealed.*

### 8 Exposure controls/personal protection

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

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**\*Ingredients with limit values that require monitoring at the workplace:**

**7697-37-2 nitric acid**

OELV (Ireland)	Short-term value: 10 mg/m <sup>3</sup> , 4 ppm Long-term value: 5 mg/m <sup>3</sup> , 2 ppm
PEL (USA)	5 mg/m <sup>3</sup> , 2 ppm
REL (USA)	Short-term value: 10 mg/m <sup>3</sup> , 4 ppm Long-term value: 5 mg/m <sup>3</sup> , 2 ppm
TLV (USA)	Short-term value: 10 mg/m <sup>3</sup> , 4 ppm Long-term value: 5.2 mg/m <sup>3</sup> , 2 ppm
IOELV (European Union)	Short-term value: 2.6 mg/m <sup>3</sup> , 1 ppm

**7440-43-9 cadmium (non-pyrophoric)**

OELV (Ireland)	0.025 mg/m <sup>3</sup> C2
PEL (USA)	0.005 mg/m <sup>3</sup> Table Z-2 for exclusions in 29 CFR 1910.1027
REL (USA)	as Cd; LFC (LOQ 0.1 mg/m <sup>3</sup> )
TLV (USA)	0.01 mg/m <sup>3</sup> 0.002 R; as CD; BEI

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

**\*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.  
Do not inhale gases / fumes / aerosols.  
Avoid contact with the eyes and skin.

**\*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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**\*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.

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**\*Eye protection:**



Tightly sealed goggles

### 9 Physical and chemical properties

**\*General Information**

<b>Form:</b>	Liquid
<b>Colour:</b>	According to product specification
<b>Odour:</b>	Characteristic

**\*Change in condition**

**Melting point/Melting range:** 0°C  
**Boiling point/Boiling range:** 100°C

**\*Flash point:** Not applicable.

**\*Self-igniting:** Product is not selfigniting.

**\*Danger of explosion:** Product does not present an explosion hazard.

**\*Density at 20°C:** 1.01770 g/cm<sup>3</sup>

**\*Solubility/ miscibility with water:** Fully miscible.

**\*Solvent content:**  
**Organic solvents:** 0.0 %

### 10 Stability and reactivity

**\*Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**\*Dangerous reactions** No dangerous reactions known.

**\*Dangerous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

**\*Acute toxicity:**

**\*Primary irritant effect:**

**\*on the skin:** Irritant to skin and mucous membranes.

**\*on the eye:** Irritating effect.

**\*Sensitization:** No sensitizing effects known.

**\*Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Irritant

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Carcinogenic if inhaled.

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### 12 Ecological information

**\*General notes:***Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water**Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.*

### 13 Disposal considerations

**\*Product:****\*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.***\*Recommended cleansing agents:** *Water, if necessary together with cleansing agents.*

### 14 Transport information

**\*Land transport ADR/RID (cross-border)****\*ADR/RID class:** -**\*Maritime transport IMDG:****\*Marine pollutant:** No**\*Transport/Additional information:** *Not dangerous according to the above specifications.*

### 15 Regulatory information

**\*Labelling according to EU guidelines:***The product has been classified and marked in accordance with EU Directive 99/45/EC and all other EU Directives referred to therein.***\*Code letter and hazard designation of product:**

T Toxic

**\*Hazard-determining components of labelling:***cadmium (non-pyrophoric)***\*Risk phrases:***49 May cause cancer by inhalation.**36/38 Irritating to eyes and skin.*

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**\*Safety phrases:**

- 53 Avoid exposure - obtain special instructions before use.
- 20 When using do not eat or drink.
- 23 Do not breathe fumes/aerosol.
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- 60 This material and its container must be disposed of as hazardous waste.

**\*National regulations:****\*Technical instructions (air):**

Class	Share in %
Water	97.9
I	0.1

**\*Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.**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 MSDS:** Safety Officer**\*Contact:** Mr. Sean Murphy