

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

Printing 16.11.2023

version number 14

Revision: 08.03.2019

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

***1.1 Product identifier**

***Trade name:** CERIUM AAS STANDARD SOLUTION
1000mg/l Ce in 2-5% HNO₃

***Article number:** ACEH

***Registration number**

A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

No further relevant information available.

***Application of the substance / the mixture** Laboratory Chemicals

***1.3 Details of the supplier of the safety data sheet**

***Manufacturer/Supplier:**

Reagecon Diagnostics Ltd.

Shannon Free Zone,

Shannon,

Co. Clare,

Ireland.

Tel +353 61 472622

Fax +353 61 472642

***Further information obtainable by contacting:** sds@reagecon.ie

***1.4 Emergency telephone number:**

National Poisons Information Centre: +353 (1) 809 2166 (8.00 a.m. to 10.00 p.m. 7 days a week)

Healthcare Professionals: +353 (1) 809 2566 (24 hour service)

For Hazardous Materials [or Dangerous Goods] Incident

Spill, Leak, Fire, Exposure, or Accident

Call CHEMTREC

For Ireland call +(353)-19014670

For Outside Ireland call +1 703-741-5970 / 1-800-424-9300 CCN849800

SECTION 2: Hazards identification

***2.1 Classification of the substance or mixture**

***Classification according to Regulation (EC) No 1272/2008**



flame over circle

Ox. Liq. 2 H272 May intensify fire; oxidiser.



skull and crossbones

Acute Tox. 2 H330 Fatal if inhaled.



corrosion

Skin Corr. 1A H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

***2.2 Label elements**

***Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the GB CLP regulation.

(Contd. on page 2)

GB

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

Printing 16.11.2023

version number 14

Revision: 08.03.2019

Trade name: CERIUM AAS STANDARD SOLUTION
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(Contd. of page 1)

***Hazard pictograms**

GHS03 GHS05 GHS06

Signal word** DangerHazard-determining components of labelling:**
nitric acid***Hazard statements**

H272 May intensify fire; oxidiser.

H330 Fatal if inhaled.

H314 Causes severe skin burns and eye damage.

***Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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.

P310 Immediately call a POISON CENTER/doctor.

P320 Specific treatment is urgent (see on this label).

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

***Additional information:**

Product contains: Restricted explosives precursors. Making available, introduction, possession and use according to Regulation (EU) 2019/1148, Article 5 (1) and (3).

2.3 Other hazards**Results of PBT and vPvB assessment*****PBT:** Not applicable.***vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures**Description:** Mixture of substances listed below with nonhazardous additions.***Dangerous components:**

CAS: 7697-37-2	nitric acid	≥5-<10%
EINECS: 231-714-2	Ox. Liq. 2, H272; Acute Tox. 1, H330; Skin Corr. 1A, H314, EUH071 Specific concentration limits: Ox. Liq. 2; H272: C ≥ 99 % Ox. Liq. 3; H272: 70 % ≤ C < 99 %	

SECTION 4: First aid measures

4.1 Description of first aid measures**General information:** Immediately remove any clothing soiled by the product.***After inhalation:** In case of unconsciousness place patient stably in side position for transportation.

(Contd. on page 3)

Safety data sheet
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version number 14

Revision: 08.03.2019

Trade name: CERIUM AAS STANDARD SOLUTION
1000mg/l Ce in 2-5% HNO₃

(Contd. of page 2)

***After skin contact:**

Remove contaminated clothing and rinse skin thoroughly with water. Get medical attention if any discomfort continues.

***After eye contact:**

Promptly wash eyes with plenty of water for up to 15 minutes. Open eyes wide apart and rinse well to remove any contact lenses. Do not remove contact lenses by hand. Get medical attention. Continue to rinse.

***After swallowing:**

Drink plenty of water and provide fresh air. Call for a doctor immediately.

Do not induce vomiting; call for medical help immediately. Rinse mouth thoroughly with water and give large amounts of water to drink. Never give anything by mouth to an unconscious person.

***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:**

Indications shall be given whether any extinguishing media are inappropriate for a particular situation involving the substance or mixture

Use fire extinguishing methods suitable to surrounding conditions.

***5.2 Special hazards arising from the substance or mixture** No further relevant information available.

5.3 Advice for firefighters**Protective equipment:**

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Avoid run off to waterways and sewers

SECTION 6: Accidental release measures

***6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment as described in Section 8 below. Keep unprotected persons away.

***6.2 Environmental precautions:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

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

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralising agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

***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.

Prevent formation of aerosols.

***Information about fire - and explosion protection:** No special measures required.

(Contd. on page 4)

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

Printing 16.11.2023

version number 14

Revision: 08.03.2019

Trade name: CERIUM AAS STANDARD SOLUTION
1000mg/l Ce in 2-5% HNO₃

(Contd. of page 3)

7.2 Conditions for safe storage, including any incompatibilities**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.***7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters**Ingredients with limit values that require monitoring at the workplace:****CAS: 7697-37-2 nitric acid**

WEL	Short-term value: 2.6 mg/m ³ , 1 ppm
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Additional information:** The lists valid during the making were used as basis.8.2 Exposure controls*****Appropriate engineering controls** No further data; see item 7.***Individual protection measures, such as 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.

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.

Where risk assessment shows air-purifying respirators are appropriate use a respirator with multi-purpose combination (US) or type ABEK (EN14387) respirator cartridges as back up to engineering controls. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

***Hand protection**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Always ensure that gloves are inspected before use.

Selection of protective gloves must include consideration of the penetration times along with rates of diffusion and degradation. The selected glove should comply with the specifications of EU Directive 89/686/EEC and the standard EN374 derived from it.

***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.

Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Splash contact

(Contd. on page 5)

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

Printing 16.11.2023

version number 14

Revision: 08.03.2019

Trade name: CERIUM AAS STANDARD SOLUTION
1000mg/l Ce in 2-5% HNO₃

(Contd. of page 4)

Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

***Penetration time of glove material**

In the absence of data above, the exact break through time has to be sourced from the manufacturer of the protective gloves and has to be observed.

***Eye/face protection**

Tightly sealed goggles: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties**General Information**

*Physical state	Liquid
*Colour:	According to product specification
*Odour:	Characteristic
*Odour threshold:	Not determined.
*Melting point/freezing point:	Undetermined.
*Boiling point or initial boiling point and boiling range	83 °C
*Flammability	Contact with combustible material may cause fire.
*Lower and upper explosion limit	
*Lower:	Not determined.
*Upper:	Not determined.
*Flash point:	Not applicable.
*Decomposition temperature:	Not determined.
*pH	Not determined.
*Viscosity:	
*Kinematic viscosity	Not determined.
*Dynamic:	Not determined.
*Solubility	
*water:	Fully miscible.
*Partition coefficient n-octanol/water (log value)	Not determined.
*Vapour pressure at 20 °C:	23 hPa
*Density and/or relative density	
*Density at 20 °C:	1.04372 g/cm ³
*Relative density	Not determined.
*Vapour density	Not determined.

***9.2 Other information**

*Appearance:	
*Form:	Liquid
*Important information on protection of health and environment, and on safety.	
*Auto-ignition temperature:	Product is not selfigniting.
*Explosive properties:	Product does not present an explosion hazard.

(Contd. on page 6)

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

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version number 14

Revision: 08.03.2019

Trade name: CERIUM AAS STANDARD SOLUTION
1000mg/l Ce in 2-5% HNO₃

(Contd. of page 5)

***Change in condition**

***Evaporation rate** *Not determined.*

***Information with regard to physical hazard classes**

*Explosives	<i>Void</i>
*Flammable gases	<i>Void</i>
*Aerosols	<i>Void</i>
*Oxidising gases	<i>Void</i>
*Gases under pressure	<i>Void</i>
*Flammable liquids	<i>Void</i>
*Flammable solids	<i>Void</i>
*Self-reactive substances and mixtures	<i>Void</i>
*Pyrophoric liquids	<i>Void</i>
*Pyrophoric solids	<i>Void</i>
*Self-heating substances and mixtures	<i>Void</i>
*Substances and mixtures, which emit flammable gases in contact with water	<i>Void</i>
*Oxidising liquids	<i>May intensify fire; oxidiser.</i>
*Oxidising solids	<i>Void</i>
*Organic peroxides	<i>Void</i>
*Corrosive to metals	<i>Void</i>
*Desensitised explosives	<i>Void</i>

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** *No dangerous reactions known.*

***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.*

SECTION 11: Toxicological information

***11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

***Acute toxicity** *Fatal if inhaled.*

***Skin corrosion/irritation** *Causes severe skin burns and eye damage.*

***Serious eye damage/irritation** *Causes serious eye damage.*

***11.2 Information on other hazards**

***Endocrine disrupting properties**

None of the ingredients is listed.

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.*

***12.5 Results of PBT and vPvB assessment**

***PBT:** *Not applicable.*

***vPvB:** *Not applicable.*

(Contd. on page 7)

Safety data sheet
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version number 14

Revision: 08.03.2019

Trade name: CERIUM AAS STANDARD SOLUTION
1000mg/l Ce in 2-5% HNO₃

(Contd. of page 6)

***12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects**Additional ecological information:*****General notes:**

Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water

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

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Danger to drinking water if even small quantities leak into the ground.

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.

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

SECTION 14: Transport information

14.1 UN number or ID number**ADR, IMDG, IATA**

UN2031

14.2 UN proper shipping name**ADR**

2031 NITRIC ACID mixture

2031 NITRIC ACID, mixture

***IMDG, IATA**

NITRIC ACID mixture

14.3 Transport hazard class(es)**ADR, IMDG, IATA*****Class**

8 Corrosive substances.

***Label**

8

14.4 Packing group**ADR, IMDG, IATA**

II

14.5 Environmental hazards:**Marine pollutant:**

No

***14.6 Special precautions for user**

Warning: Corrosive substances.

***Hazard identification number (Kemler code):**

80

***EMS Number:**

F-A,S-B

***Segregation groups**

(SGG1) Acids

***Stowage Category**

D

14.7 Maritime transport in bulk according to IMO*instruments**

Not applicable.

(Contd. on page 8)

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

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1000mg/l Ce in 2-5% HNO₃

(Contd. of page 7)

Transport/Additional information:**ADR*****Limited quantities (LQ)** 1L***Transport category** 2***Tunnel restriction code** E***UN "Model Regulation":** UN 2031 NITRIC ACID MIXTURE, 8, II**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** None of the ingredients is listed.***Seveso category**

H2 ACUTE TOXIC

P8 OXIDISING LIQUIDS AND SOLIDS

Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 tQualifying quantity (tonnes) for the application of upper-tier requirements** 200 t***National regulations:*****Waterhazard class:** Water hazard class 3 (Self-assessment): extremely hazardous for water.***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.

***Relevant Phrases:**

H272 May intensify fire; oxidiser.

H314 Causes severe skin burns and eye damage.

H330 Fatal if inhaled.

EUH071 Corrosive to the respiratory tract.

Department issuing SDS:** Health and SafetyContact:** sds@reagecon.ie***Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

UK REACH (Registration, Evaluation, Authorisation and restriction of Chemicals)

ADR: Accord relatif au transport international 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

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Ox. Liq. 2: Oxidizing liquids – Category 2

Acute Tox. 1: Acute toxicity – Category 1

Acute Tox. 2: Acute toxicity – Category 2

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Eye Dam. 1: Serious eye damage/eye irritation – Category 1