

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

Printing 21.11.2023

version number 5 (replaces version 4)

Revision: 21.11.2023

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

***1.1 Product identifier**

***Trade name:** DIDYMIUM OXIDE SOLUTION UV & VISIBLE WAVELENGTH STANDARD 298nm to 865nm

***Article number:** RSPEC00011

***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.

***UFI:** 3JX0-Y0U3-100T-C1VU

***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**



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS03 flame over circle

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



GHS05 corrosion

Skin Corr. 1B 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 CLP regulation.

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***Hazard pictograms**

GHS02 GHS03 GHS05

Signal word** DangerHazard-determining components of labelling:**

perchloric acid

***Hazard statements**

H226 Flammable liquid and vapour.

H272 May intensify fire; oxidiser.

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.

P240 Ground and bond container and receiving equipment.

P241 Use explosion-proof [electrical/ventilating/lighting] equipment.

P242 Use non-sparking tools.

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.

P321 Specific treatment (see on this label).

P405 Store locked up.

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

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: 7601-90-3 EINECS: 231-512-4	perchloric acid Ox. Liq. 1, H271; Skin Corr. 1A, H314; Acute Tox. 4, H302 Specific concentration limits: Skin Corr. 1A; H314: C ≥ 50 % Skin Corr. 1B; H314: 10 % ≤ C < 50 % Skin Irrit. 2; H315: 1 % ≤ C < 10 % Eye Irrit. 2; H319: 1 % ≤ C < 10 % Ox. Liq. 1; H271: C ≥ 50.0001 % Ox. Liq. 2; H272: 0.01 % ≤ C < 50.0001 %	10%
CAS: 12036-32-7 EINECS: 234-845-3	Praesodymium (III) Oxide Eye Irrit. 2, H319; STOT SE 3, H335	≤2.5%

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

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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.

***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:**

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:** CO₂, sand, extinguishing powder. Do not use water.

***For safety reasons unsuitable extinguishing agents:**

Water

Water with full jet

***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:** 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.

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.

Prevent formation of aerosols.

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***Information about fire - and explosion protection:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

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:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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:**

Not required.

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).

Use suitable respiratory protective device in case of insufficient ventilation.

***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

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Minimum layer thickness: 0.11 mm
Break through time: 480 min

Splash contact
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**

39 °C

***Flammability**Contact with combustible material may cause fire.
Flammable.***Lower and upper explosion limit*****Lower:**

Not determined.

***Upper:**

Not determined.

***Flash point:**

40 °C

***Decomposition temperature:**

Not determined.

***pH**

Not determined.

Viscosity:**Kinematic viscosity**

Not determined.

***Dynamic:**

Not determined.

Solubility**water:**

Not miscible or difficult to mix.

***Partition coefficient n-octanol/water (log value)**

Not determined.

***Vapour pressure at 20 °C:**

39.1 hPa

Density and/or relative density**Density at 20 °C:**1.3226 g/cm³***Relative density**

Not determined.

***Vapour density**

Not determined.

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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 is not explosive. However, formation of explosive air/vapour mixtures are possible.***Change in condition*****Evaporation rate** Not determined.***Information with regard to physical hazard classes*****Explosives** Void***Flammable gases** Void***Aerosols** Void***Oxidising gases** Void***Gases under pressure** Void***Flammable liquids** Flammable liquid and vapour.***Flammable solids** Void***Self-reactive substances and mixtures** Void***Pyrophoric liquids** Void***Pyrophoric solids** Void***Self-heating substances and mixtures** Void***Substances and mixtures, which emit flammable gases in contact with water** Void***Oxidising liquids** May intensify fire; oxidiser.***Oxidising solids** Void***Organic peroxides** Void***Corrosive to metals** Void***Desensitised explosives** Void**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** Based on available data, the classification criteria are not met.***Skin corrosion/irritation** Causes severe skin burns and eye damage.***Serious eye damage/irritation** Causes serious eye damage.***Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.***Germ cell mutagenicity** Based on available data, the classification criteria are not met.***Carcinogenicity** Based on available data, the classification criteria are not met.***Reproductive toxicity** Based on available data, the classification criteria are not met.***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.

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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.***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 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.

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

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.

***European waste catalogue**

HP2 Oxidising

HP3 Flammable

HP8 Corrosive

Uncleaned packaging:**Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

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

UN2920

14.2 UN proper shipping name**ADR**2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S.
(PERCHLORIC ACID)2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S.
(PERCHLORIC ACID)***IMDG, IATA**CORROSIVE LIQUID, FLAMMABLE, N.O.S.
(PERCHLORIC ACID)

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

***Class** 8 Corrosive substances.
***Label** 8+3

***IMDG**

***Class** 8 Corrosive substances.
***Label** 8/3

***IATA**

***Class** 8 Corrosive substances.
***Label** 8 (3)

***14.4 Packing group**

***ADR, IMDG, IATA** II

***14.5 Environmental hazards:** Not applicable.

***14.6 Special precautions for user** Warning: Corrosive substances.

***Hazard identification number (Kemler code):** 83

***EMS Number:** F-E,S-C

***Segregation groups** (SGG1a) Strong acids

***Stowage Category** E

***Stowage Code** SW1 Protected from sources of heat.

SW2 Clear of living quarters.

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

Not applicable.

Transport/Additional information:**ADR**

***Limited quantities (LQ)** 1L

***Transport category** 2

***Tunnel restriction code** D/E

***UN "Model Regulation":** UN 2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S. (PERCHLORIC ACID), 8 (3), 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.

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*Seveso category P8 OXIDISING LIQUIDS AND SOLIDS

*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

*DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

*REGULATION (EU) 2019/1148

*Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

*Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

*Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

*Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

*National regulations:

*Waterhazard class: Water hazard class 1 (Self-assessment): slightly 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:

H271 May cause fire or explosion; strong oxidiser.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

*Department issuing SDS: Health and Safety

*Contact: sds@reagecon.ie

*Date of previous version: 21.11.2023

*Version number of previous version: 4

*Abbreviations and acronyms:

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

Flam. Liq. 3: Flammable liquids – Category 3

Ox. Liq. 1: Oxidizing liquids – Category 1

Ox. Liq. 2: Oxidizing liquids – Category 2

Acute Tox. 4: Acute toxicity – Category 4

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

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

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

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Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
***NO**

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