

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

**\*Product identifier**

**\*Trade name:** REDOX STANDARD

**\*Article number:** RS250

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

**\*Application of the substance / the preparation** Laboratory chemicals

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

**\*Manufacturer/Supplier:**

Reagecon Diagnostics Ltd.

Shannon Free Zone,

Shannon,

Co. Clare,

IRL.

Tel +353 61 472622

Fax +353 61 472642

**\*Further information obtainable by contacting:** [sds@reagecon.ie](mailto:sds@reagecon.ie)

**\*Emergency telephone number:**

24 HOUR EMERGENCY CONTACT NUMBER AVAILABLE :- If phoning from USA 011-353-87-9518207,

If phoning from Rest of World 00-353-87-9518207

## 2 Hazards identification

**\*Classification of the substance or mixture**

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

The product is not classified according to the CLP regulation.

**\*Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Not applicable.

**\*Information concerning particular hazards for human and environment:**

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

**\*Classification system:**

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

**\*Label elements**

**\*Labelling according to EU guidelines:**

Observe the general safety regulations when handling chemicals.

The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).

**\*Other hazards**

**\*Results of PBT and vPvB assessment**

**\*PBT:** Not applicable.

**\*vPvB:** Not applicable.

## 3 Composition/information on ingredients

**\*Chemical characterization: Mixtures**

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

**\*Dangerous components:**

CAS: 13746-66-2	tripotassium hexacyanoferrate	2.5-10%
EINECS: 237-323-3	substance with a Community workplace exposure limit	
CAS: 13943-58-3	potassiumferrocyanide	≤ 2.5%
	R32	

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\***Additional information:** For the wording of the listed risk phrases refer to section 16.**4 First aid measures**\***Description of first aid measures**\***General information:** No special measures required.\***After inhalation:** Supply fresh air; consult doctor in case of complaints.\***After skin contact:** Generally the product does not irritate the skin.\***After eye contact:** Rinse opened eye for several minutes under running water.\***After swallowing:** If symptoms persist consult doctor.\***Information for doctor:**\***Most important symptoms and effects, both acute and delayed** No further relevant information available.\***Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

**5 Firefighting measures**\***Extinguishing media**\***Suitable extinguishing agents:**CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.\***Special hazards arising from the substance or mixture** No further relevant information available.\***Advice for firefighters**\***Protective equipment:** No special measures required.**6 Accidental release measures**\***Personal precautions, protective equipment and emergency procedures** Not required.\***Environmental precautions:**

Dilute with plenty of water.

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

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

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

\***Reference to other sections**

No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

**7 Handling and storage**\***Handling:PPE to be worn.** See section 8\***Precautions for safe handling** No special measures required.\***Information about fire - and explosion protection:** No special measures required.\***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:** None.\***Specific end use(s)** No further relevant information available.**8 Exposure controls/personal protection**\***Additional information about design of technical facilities:** No further data; see item 7.

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**\*Control parameters****\*Ingredients with limit values that require monitoring at the workplace:****13746-66-2 tripotassium hexacyanoferrate**

OEL (Ireland)	5 mg/m <sup>3</sup> Sk
PEL (USA)	5 mg/m <sup>3</sup> as CN; Skin

**\*Additional information:** The lists valid during the making were used as basis.**\*Exposure controls****\*Personal protective equipment:****\*General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

**\*Respiratory protection:** Suitable respiratory protective device recommended.**\*Protection of hands:**

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.

**\*Eye protection:** Goggles recommended during refilling**9 Physical and chemical properties****\*Information on basic physical and chemical properties****\*General Information****\*Appearance:**

**Form:** Liquid

**Colour:** According to product specification

**\*Odour:** Characteristic**\*Odour threshold:** Not determined.**\*pH-value:** Not determined.**\*Change in condition****Melting point/Melting range:** Undetermined.**Boiling point/Boiling range:** 100°C**\*Flash point:** Not applicable.**\*Flammability (solid, gaseous):** Not applicable.**\*Ignition temperature:****Decomposition temperature:** Not determined.**\*Self-igniting:** Product is not selfigniting.**\*Danger of explosion:** Product does not present an explosion hazard.**\*Explosion limits:****Lower:** Not determined.

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<b>Upper:</b>	<i>Not determined.</i>
<b>*Vapour pressure at 20°C:</b>	23 hPa
<b>*Density:</b>	<i>Not determined.</i>
<b>*Relative density</b>	<i>Not determined.</i>
<b>*Vapour density</b>	<i>Not determined.</i>
<b>*Evaporation rate</b>	<i>Not determined.</i>
<b>*Solubility/ miscibility with water:</b>	Fully miscible.
<b>*Segregation coefficient (n-octanol/water):</b>	<i>Not determined.</i>
<b>*Viscosity:</b>	
<b>Dynamic:</b>	<i>Not determined.</i>
<b>Kinematic:</b>	<i>Not determined.</i>
<b>*Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>*Other information</b>	<i>No further relevant information available.</i>

### 10 Stability and reactivity

**\*Reactivity****\*Chemical stability****\*Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.***\*Possibility of hazardous reactions** *No dangerous reactions known.***\*Conditions to avoid** *No further relevant information available.***\*Incompatible materials:** *No further relevant information available.***\*Hazardous decomposition products:** *No dangerous decomposition products known.*

### 11 Toxicological information

**\*Information on toxicological effects****\*Acute toxicity:****\*Primary irritant effect:****\*on the skin:** *No irritant effect.***\*on the eye:** *No irritating effect.***\*Sensitization:** *No sensitizing effects known.***\*Additional toxicological information:**

*The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.*

*When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.*

### 12 Ecological information

**\*Toxicity****\*Aquatic toxicity:** *No further relevant information available.***\*Persistence and degradability** *No further relevant information available.***\*Behaviour in environmental systems:****\*Bioaccumulative potential** *No further relevant information available.***\*Mobility in soil** *No further relevant information available.***\*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.*

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

**\*Results of PBT and vPvB assessment****\*PBT:** Not applicable.**\*vPvB:** Not applicable.**\*Other adverse effects** No further relevant information available.**13 Disposal considerations****\*Waste treatment methods****\*Recommendation** Smaller quantities can be disposed of with household waste.**\*Uncleaned packaging:****\*Recommendation:** Disposal must be made according to official regulations.**\*Recommended cleansing agents:** Water, if necessary together with cleansing agents.**14 Transport information****\*UN-Number****\*ADR, ADN, IMDG, IATA** Void**\*UN proper shipping name****\*ADR, ADN, IMDG, IATA** Void**\*Transport hazard class(es)****\*ADR, ADN, IMDG, IATA****\*Class** Void**\*Packing group****\*ADR, IMDG, IATA** Void**\*Environmental hazards:****\*Marine pollutant:** No**\*Special precautions for user** Not applicable.**\*Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.**\*Transport/Additional information:** Not dangerous according to the above specifications.**\*UN "Model Regulation":** -**15 Regulatory information****\*Safety, health and environmental regulations/legislation specific for the substance or mixture****\*National regulations:****\*Waterhazard class:** Water hazard class 3 (Self-assessment):extremely hazardous for water.**\*Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**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:**

R32 Contact with acids liberates very toxic gas.

**\*Department issuing MSDS:** Health and Safety

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**\*Contact:** *sds@reagecon.ie***\*Abbreviations and acronyms:***ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)**RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)**IMDG: International Maritime Code for Dangerous Goods**IATA: International Air Transport Association**ICAO: International Civil Aviation Organization**GHS: Globally Harmonized System of Classification and Labelling of Chemicals*

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