

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

Printing date 10.05.2011

Revision: 10.05.2011

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

- **Product identifier**
- **Trade name: Precision Reagent TON 1**
- **Article number:** KR 103
- **Relevant identified uses of the substance or mixture and uses advised against**  
Water Testing Reagent
- **Application of the substance / the preparation** Water Testing Reagent
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Serosep Ltd  
Annacotty Business Park  
Annacotty  
Co.Limerick  
IRELAND
- **Further information obtainable from:**  
Product safety department.  
trussell@serosep.com
- **Emergency telephone number:** During normal opening times: 00353/61/358190

### 2 Hazards identification

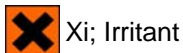
- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS07

Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2 H319 Causes serious eye irritation.

- 
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xi; Irritant

R36/38: Irritating to eyes and skin.

- **Information concerning particular hazards for human and environment:**  
The product has 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 has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

- **Code letter and hazard designation of product:**



Xi Irritant

- **Risk phrases:**  
36/38 Irritating to eyes and skin.
- **Safety phrases:**  
2 Keep out of the reach of children.  
23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).

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- 46 If swallowed, seek medical advice immediately and show this container or label.
- 56 Dispose of this material and its container to hazardous or special waste collection point.

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

### 3 Composition/information on ingredients

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

- **Dangerous components:**

CAS: 1310-73-2	sodium hydroxide	 C R35	0.9%
EINECS: 215-185-5		 Skin Corr. 1A, H314	

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

### 4 First aid measures

- **Description of 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.
- **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.
- **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.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.
- **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.

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## 7 Handling and storage

- **Handling:**
- **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.
- **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 container tightly sealed.
- **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.
- **Control parameters**

<b>Ingredients with limit values that require monitoring at the workplace:</b>	
<b>1310-73-2 sodium hydroxide</b>	
OEL	Short-term value: 2 mg/m <sup>3</sup>

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

- **Exposure controls**
- **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.
- **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

## · Information on basic physical and chemical properties

## · General Information

## · Appearance:

Form:	Fluid
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.
Upper:	Not determined.

· Vapour pressure at 20°C: 23 hPa

· Density at 20°C:	1.01017 g/cm <sup>3</sup>
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.

## · Solubility in / Miscibility with water:

Fully miscible.

· Segregation coefficient (n-octanol/water): Not determined.

## · Viscosity:

Dynamic:	Not determined.
Kinematic:	Not determined.

## · Solvent content:

Organic solvents:	0.0 %
Water:	99.1 %
VOC (EC)	0.00 %

Solids content: 0.9 %

· Other information: No further relevant information available.

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**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:** 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

**12 Ecological information**

- **Toxicity**
- **Acquatic 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:** Generally not hazardous for water
- **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**  
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.

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### 14 Transport information

· Land transport ADR/RID (cross-border)



- ADR/RID class: 8 Corrosive substances.
- Danger code (Kemler): 80
- UN-Number: 1824
- Packaging group: III
- Hazard label: 8
- UN proper shipping name: 1824 SODIUM HYDROXIDE SOLUTION
- Tunnel restriction code E

· Maritime transport IMDG:



- IMDG Class: 8
- UN Number: 1824
- Label: 8
- Packaging group: III
- EMS Number: F-A,S-B
- Marine pollutant: No
- Segregation groups: Alkalies
- Proper shipping name: SODIUM HYDROXIDE SOLUTION

· Air transport ICAO-TI and IATA-DGR:



- ICAO/IATA Class: 8
- UN/ID Number: 1824
- Label: 8
- Packaging group: III
- Proper shipping name: SODIUM HYDROXIDE SOLUTION

- UN "Model Regulation": UN1824, SODIUM HYDROXIDE SOLUTION, 8, III
- Special precautions for user Warning: Corrosive substances.
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

### 15 Regulatory information

- 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

H314 Causes severe skin burns and eye damage.

R35 Causes severe burns.

- Department issuing MSDS: Product safety department.

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- **Contact:** Mr. Russell

- **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

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

VOC: Volatile Organic Compounds (USA, EU)

IE