

**TON R1**

Date 3.5.2011

Previous date: -

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1 Product identifier****1.1.1 Commercial Product Name**

TON R1

**1.1.2 Product code**

984369

**1.2 Relevant identified uses of the substance or mixture and uses advised against****1.2.1 Recommended use**

For general laboratory purposes.

**1.3 Details of the supplier of the safety data sheet****1.3.1 Supplier**

Thermo Fisher Scientific Oy, Clinical Diagnostics Finland

Ratastie 2, P.O.Box 100

FI-01621 Vantaa

FINLAND

+358-9-329 100

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FI0921547-0

**Email**

info.cdx.fi@thermofisher.com

**1.4 Emergency telephone number****2. HAZARDS IDENTIFICATION**

The product is classified as dangerous in accordance with Directive 1999/45/EC.

**2.1 Classification of the substance or mixture****67/548/EEC - 1999/45/EC**

Xi; R36/38

**2.2 Label elements****67/548/EEC - 1999/45/EC**

Xi

Irritant

**R-phrases(s)**

R36/38

Irritating to eyes and skin.

**S-phrases(s)**

S26

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28

After contact with skin, wash immediately with plenty of water.

**2.3 Other hazards**

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**3. COMPOSITION/INFORMATION ON INGREDIENTS****Hazardous components****CAS/EC and Reg. number**

1310-73-2

**Chemical name of the substance**

Sodium hydroxide

**Concentration Classification**

0.5-1.5%

C; R35

**3.3 Other information**

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**4. FIRST AID MEASURES**

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- 4.1 Description of first aid measures**  
Take off all contaminated clothing immediately.
- 4.1.2 Inhalation**  
Move to fresh air.
- 4.1.3 Skin contact**  
Wash off with soap and water.
- 4.1.4 Eye contact**  
Rinse with plenty of water.
- 4.1.5 Ingestion**  
Consult a physician if necessary.
- 4.2 Most important symptoms and effects, both acute and delayed**  
-
- 4.3 Indication of immediate medical attention and special treatment needed**  
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**5. FIREFIGHTING MEASURES**

- 5.1 Extinguishing media**
- 5.1.1 Suitable extinguishing media**  
Carbon dioxide (CO<sub>2</sub>), Foam, Water
- 5.1.2 Extinguishing media which must not be used for safety reasons**  
no data available
- 5.2 Special hazards arising from the substance or mixture**  
no data available
- 5.3 Advice for firefighters**  
no data available
- 5.4 Specific methods**  
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**6. ACCIDENTAL RELEASE MEASURES**

- 6.1 Personal precautions, protective equipment and emergency procedures**  
Use personal protective equipment.
- 6.2 Environmental precautions**  
Flush with plenty of water. Do not flush into surface water or sanitary sewer system.
- 6.3 Methods and materials for containment and cleaning up**  
Soak up with inert absorbent material and dispose of as hazardous waste.
- 6.4 Reference to other sections**  
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**7. HANDLING AND STORAGE**

- 7.1 Precautions for safe handling**  
Avoid contact with skin and eyes. Wear personal protective equipment.
- 7.2 Conditions for safe storage, including any incompatibilities**  
Keep at temperatures between 2 and 8 °C.
- 7.3 Specific end use(s)**  
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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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<b>8.1</b>	<b>Control parameters</b>	
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<b>8.1.1</b>	<b>Threshold limits</b>	
	1310-73-2 Sodium hydroxide	2 mg/m <sup>3</sup> (8 h)
<b>8.1.2</b>	<b>Other information on limit values</b>	
	no data available	
<b>8.1.3</b>	<b>Limit values in other countries</b>	
	no data available	
<b>8.1.4</b>	<b>DNELs</b>	
	-	
<b>8.1.5</b>	<b>PNECs</b>	
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<b>8.2</b>	<b>Exposure controls</b>	
<b>8.2.1</b>	<b>Appropriate engineering controls</b>	
	Wear protective gloves.	
<b>8.2.2</b>	<b>Individual protection measures</b>	
<b>8.2.2.1</b>	<b>Respiratory protection</b>	
	No personal respiratory protective equipment normally required.	
<b>8.2.2.2</b>	<b>Hand protection</b>	
	Impervious gloves	
<b>8.2.2.3</b>	<b>Eye protection</b>	
	Goggles	
<b>8.2.2.4</b>	<b>Skin and body protection</b>	
	Lab coat	
<b>8.2.3</b>	<b>Environmental exposure controls</b>	
	no data available	

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>9.1</b>	<b>Important Health Safety and Environmental Information</b>	
<b>9.1.1</b>	<b>Appearance</b>	
	liquid	
<b>9.1.2</b>	<b>Odour</b>	no data available
<b>9.1.3</b>	<b>Odour threshold</b>	no data available
<b>9.1.4</b>	<b>pH</b>	no data available
<b>9.1.5</b>	<b>Melting point/freezing point</b>	no data available
<b>9.1.6</b>	<b>Initial boiling point and boiling range</b>	100 °C
<b>9.1.7</b>	<b>Flash point</b>	no data available
<b>9.1.8</b>	<b>Evaporation rate</b>	no data available
<b>9.1.9</b>	<b>Flammability (solid, gas)</b>	not auto-flammable
<b>9.1.10</b>	<b>Explosive properties</b>	
<b>9.1.10.1</b>	<b>Lower explosion limit</b>	no data available
<b>9.1.10.2</b>	<b>Upper explosion limit</b>	no data available
<b>9.1.11</b>	<b>Vapour pressure</b>	not determined
<b>9.1.12</b>	<b>Vapour density</b>	no data available
<b>9.1.13</b>	<b>Relative density</b>	1.0 g/cm <sup>3</sup>
<b>9.1.14</b>	<b>Solubility(ies)</b>	
<b>9.1.14.1</b>	<b>Water solubility</b>	completely soluble
<b>9.1.14.2</b>	<b>Fat solubility (solvent - oil to be specified)</b>	no data available
<b>9.1.15</b>	<b>Partition coefficient: n-octanol/water</b>	no data available

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<b>9.1.16</b>	<b>Auto-ignition temperature</b>	no data available
<b>9.1.17</b>	<b>Decomposition temperature</b>	no data available
<b>9.1.18</b>	<b>Viscosity</b>	no data available
<b>9.1.19</b>	<b>Explosive properties</b>	no data available
<b>9.1.20</b>	<b>Oxidising properties</b>	no data available
<b>9.2</b>	<b>Other information</b>	-

**10. STABILITY AND REACTIVITY**

<b>10.1</b>	<b>Reactivity</b>	no data available
<b>10.2</b>	<b>Chemical stability</b>	no data available
<b>10.3</b>	<b>Possibility of hazardous reactions</b>	no data available
<b>10.4</b>	<b>Conditions to avoid</b>	no data available
<b>10.5</b>	<b>Incompatible materials</b>	Acids
<b>10.6</b>	<b>Hazardous decomposition products</b>	no data available

**11. TOXICOLOGICAL INFORMATION**

<b>11.1</b>	<b>Information on toxicological effects</b>	
<b>11.1.1</b>	<b>Acute toxicity</b>	Sodium hydroxide: LD50/oral/rat = 2000 mg/kg
<b>11.1.2</b>	<b>Irritation and corrosion</b>	According to concentration, aqueous solution causes irritation or burns of eyes, skin and mucous membranes.
<b>11.1.3</b>	<b>Sensitisation</b>	no data available
<b>11.1.4</b>	<b>Subacute, subchronic and prolonged toxicity</b>	no data available
<b>11.1.5</b>	<b>STOT-single exposure</b>	no data available
<b>11.1.6</b>	<b>STOT-repeated exposure</b>	no data available
<b>11.1.7</b>	<b>Aspiration hazard</b>	no data available
<b>11.1.8</b>	<b>Other information on acute toxicity</b>	-

**12. ECOLOGICAL INFORMATION**

<b>12.1</b>	<b>Toxicity</b>	
<b>12.1.1</b>	<b>Aquatic toxicity</b>	Sodium hydroxide : 20 - 100 mg/l of sodium hydroxide in water may kill some water organisms by raising the pH. Fish: LC <sub>50</sub> = 33 - 100 mg/l, 48 h

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- 12.1.2 Toxicity to other organisms**  
no data available
- 12.2 Persistence and degradability**
- 12.2.1 Biodegradation**  
no data available
- 12.2.2 Chemical degradation**  
Sodium hydroxide:  
hydrolyses in water.
- 12.3 Bioaccumulative potential**  
no data available
- 12.4 Mobility in soil**  
Sodium hydroxide :  
Highly soluble in water, diffuses in the environment with water.
- 12.5 Results of PBT and vPvB assessment**  
no data available
- 12.6 Other adverse effects**  
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**13. DISPOSAL CONSIDERATIONS**

- 13.1 Waste treatment methods**  
The product has to be disposed of as laboratory chemical in accordance with local regulations.
- 13.2 Waste from residues / unused products**  
no data available

**14. TRANSPORT INFORMATION**

- 14.1 UN number** The product is not subject to current regulations for transportation of hazardous goods (ADR/GGVS, RID/GGVE, IMDG, IATA/ICAO).
- 14.2 UN proper shipping name** -
- 14.3 Transport hazard class(es)** -
- 14.4 Packing group** -
- 14.5 Environmental hazards**  
no data available
- 14.6 Special precautions for users**  
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- 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
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**15. REGULATORY INFORMATION**

The product is classified as dangerous in accordance with Directive 1999/45/EC.

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
no data available
- 15.2 Chemical safety assessment**  
no data available

**16. OTHER INFORMATION**

- 16.3 Key literature references and sources for data**

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The SDS of the manufacturer.

This product has been evaluated in accordance with the directives 1967/548/EEC, 1999/45/EC and 2001/58/EC.

**16.4 Classification procedure**

The product is classified as dangerous in accordance with Directive 1999/45/EC.

**16.6 Training advice**

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**16.7 Recommended restrictions**

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**16.8 Additional information available from:**

Code of the Safety Data Sheet: D10174-01-01-SDS-TON R1-EN

Corporation mentioned in point 1.3.

The information in this datasheet is to our best knowledge correct and complete, and is offered in good faith as accurate. It characterizes the product with regard to the appropriate safety precautions. It does not guarantee properties of the product.

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