RENO 14

Last changed: 13/06/2011 Replaces date: 17/12/2009

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

TRADE NAME RENO 14 **APPLICATION AREA** Detergent

Vendor art. number

1102

NATIONAL MANUFACTURER/IMPORTER

Enterprise Trion Tensid AB
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CONTACT PERSONS

| Name | E-mail | Telephone | Country | |
|--------------------|----------------------------------|-----------|---------------|--------|
| William Stomilovic | william.stomilovic@trion.se | | _ | |
| | _ | | | |
| Emergency Phone | Type of assistance | | Opening Hours | \neg |
| Efficiency Priorie | r ype or assistance Opening Hour | | Opering nours | |

Emergency Phone Type of assistance Opening Hours +46 70 60 462 94 William Stomilovic

2. HAZARDS IDENTIFICATION

GENERAL

Causes severe burns. Risk of serious damage to eyes.

HEALTH

R35 Causes severe burns.

FIRE AND EXPLOSION

The product is not flammable.

ENVIRONMENT

Readily biodegradable. Even low concentration and brief exposure may cause death or poisoning of fish and other aquatic organisms.

3. COMPOSITION / INFORMATION ON INGREDIENTS

| Ingredient name | Reg.No | EC No. | CAS No. | Conc. (wt%) | Classification |
|-------------------------------------|--------|-------------------|--------------------|----------------|---------------------|
| C 10 Alcohol ethoxylate | | | 68439-46- 3 | 1 - 5 % | Xi,R38 - R41 |
| Alcyl glucoside | | | | 1 - 5 % | Xi,R41 |
| caustic potash, potassium hydroxide | | 215-181- 3 | 1310-58- 3 | 10 - 30 % | C,R22 - R35 |
| N,N-diacetic acid | | | 51981-21-6 | 5 - 10 % | Xi,R36/38 |

Explanation of symbols: T+=highly toxic, T=toxic, C=corrosive, Xn=harmful, Xi=irritant E=Explosive, O=Oxidising, F+=Extremely flammable, F=Highly flammable, N=Dangerous for the environment, Cancer=Carcinogenic, Mut=Mutagenic, Rep=Toxic for reproduction, Conc.=Concentration

4. FIRST AID MEASURES

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GENERAL

Immediately rinse the skin and eyes with an abundant supply of water. Seek medical attention for all burns, regardless how minor they may seem.

INHALATION

Fresh air and rest.

SKIN CONTACT

Immediately rinse with abundant water and, if necessary, also on the inside of the clothes. Get medical attention if any discomfort continues.

EYE CONTACT

Rinse immediately with plenty of water. Keep the eyes wide open. Get medical attention immediately. Continue to rinse.

INGESTION

DO NOT induce vomiting. Get medical attention immediately. Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Extinguishing agent: carbon dioxide or powder.

IMPROPER EXTINGUISHING MEDIA

Do not use a direct water jet.

EXTINGUISHING METHODS

Water should only be used by fireman.

FIRE AND EXPLOSION HAZARDS

Non-flammable.

PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS

Firemen must wear closed-circuit breathing equipment and full protective suits.

OTHER INFORMATION

Containers close to fire should be removed or cooled with water.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Avoid direct contact. Wear necessary protective equipment.

SAFETY ACTIONS TO PROTECT EXTERNAL ENVIRONMENT

Prevent dispersion through damming with sand, earth or other suitable material. Prevents major discharge into sewage systems, groundwater and surface water.

METHODS FOR CLEANING UP

Neutralize with acid. Dilute with much water.

OTHER INFORMATION

Only major emissions may represent a risk.

7. HANDLING AND STORAGE

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HANDLING PRECAUTIONS

Corrosive to strongly corrosive. May attack some plastics, rubber and coatings.

HANDLING ADVICE

Wear appropriate clothing to prevent reasonably probable skin contact. Plastic packing material.

STORAGE

Plastic packing material. Keep container tightly closed. Keep locked up and out of the reach of children. Do NOT use container made of: Aluminium.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE CONTROL

Workplace and work methods are designed to prevent direct contact. Use suitable protective gloves, protective goggles and protective clothes if there is risk of direct contact or splashing.

RESPIRATORY PROTECTION

If ventilation is insufficient, suitable respiratory protection must be applied. If necessary, respirator with A filter (brown). No respirator is normally needed.

EYE PROTECTION

Use tight-fitting protective goggles.

HAND PROTECTION

Use protective gloves that are resistant to chemicals. Protective gloves (butyl rubber, natural rubber, nitrile rubber).

PROTECTIVE CLOTHING

Wear suitable protective clothing and eye/face protection.

OTHER INFORMATION

Promptly remove non-impervious clothing that becomes wet or contaminated.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE Liquid.

COLOUR Light brown.

ODOUR Weak odour.

SOLUBILITY Miscible with water. Alcohol.

WATER SOLUBILITY 100%

Physical and chemical parameters

| Parameter | Value/unit | Method/reference | Observation |
|----------------|---------------|------------------|-------------|
| pH concentrate | 14.00 | | |
| pH in solution | 14.00 | | |
| Density | 1250.00 kg/m³ | | |

10. STABILITY AND REACTIVITY

STABILITY

Stable under recommended storage and handling conditions.

CONDITIONS TO AVOID

May react with acids and oxidising substances.

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MATERIALS TO AVOID

Reacts exothermically with acids.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXIC TEST RESULTS

| caustic potash, potassium hydroxide | | | | |
|-------------------------------------|--|--------------|-----|--|
| Route of exposure | | | | |
| LD50(Oral) | | 273.00 mg/kg | rat | |

GENERAL

Corrosive to strongly corrosive. This chemical may cause skin/eye irritation and burns (corrosive).

INHALATION

Vapours may have a strong irritant effect.

SKIN CONTACT

Corrosive to strongly corrosive.

EYE CONTACT

Permanent visual damage or blindness.

INGESTION

Harmful: possible risk of irreversible effects if swallowed.

12. ECOLOGICAL INFORMATION

AQUATIC ECOTOXICITY

| N,N-diacetic acid | | | | |
|---------------------|---------------|---------------|---------------------|--------|
| Test | Exposure time | Value/unit | Species | Source |
| LC50(Acute fish) | 96h | > 100.00 mg/l | Oncorhynchus mykiss | |
| EC50(Acute Daphnia) | 48h | > 100.00 mg/l | Daphnia Magna | |
| IC50(Acute algae) | 72h | > 100.00 mg/l | | |

Point source pollution of large quantities to the aquatic environment may harm aquatic organisms.

ECOTOXICITY

Acute toxic. Occasional major emissions or frequently recurring minor emissions may have a harmful or disturbing effect.

DEGRADABILITY

Biological degradability = 90 % after 28 days.

ACCUMULATION

Not bioaccumulating in water environments

OTHER EFFECTS

Even low concentration and brief exposure may cause death or poisoning of fish and other aquatic organisms. May change the pH of the water. Large quantities may be harmful to plants.

CONCLUSION

The product is expected to be harmful to aquatic organisms.

OTHER INFORMATION

Prevent discharges into the sewage system, watercourses or lakes.

13. DISPOSAL CONSIDERATIONS

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GENERAL REGULATIONS

Local and EU regulations for refuse treatment must be followed. Do not use metal containers. Containers with rests of content is hazardous waste. Packaging may be cleaned and recycled.

CATEGORY OF WASTE

Suitable classification of waste is the responsibility of the user.

14. TRANSPORT INFORMATION

Classified as Dangerous Goods: Yes

UN No.: 1814

TRADE NAME AND DESCRIPTION

POTASSIUM HYDROXIDE SOLUTION

| ADR/RID | | | |
|---------------------------|------------------|----------------|---|
| Class: | 8 | Packing group: | П |
| Danger form: | 8 | | |
| Hazard ID: | 80 | | |
| corrosive or slightly cor | rosive substance | | |

| IMDG | | | |
|-------------------|----|----------------|----------|
| Class: | 8 | Packing group: | H |
| Sub Risk: | | EMS: | F-A, S-B |
| Marine Pollutant: | No | | |

| IATA | | | | |
|-----------|---|----------------|----|--|
| Class: | 8 | Packing group: | 11 | |
| Sub Risk: | | | | |
| Label: | 8 | | | |

OTHER INFORMATION

Tunnel Code E

15. REGULATORY INFORMATION



Corrosive

EC-Label: No

COMPOSITION

C 10 Alcohol ethoxylate (1 - 5 %), Alcyl glucoside (1 - 5 %), caustic potash, potassium hydroxide (10 - 30 %), N,N-diacetic acid (5 - 10 %)

| R-PHRASES |
|-----------|
| |

R35 Causes severe burns.

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S-PHRASES

S2 Keep out of the reach of children.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

16. OTHER INFORMATION

VENDOR NOTES

Assessed on the basis of available data.

| LIST OF RELEVANT R-PHRASES | | |
|----------------------------|---------------------------------|--|
| R22 | Harmful if swallowed. | |
| R35 | Causes severe burns. | |
| R36/38 | Irritating to eyes and skin. | |
| R38 | Irritating to skin. | |
| R41 | Risk of serious damage to eyes. | |

REVISION HISTORY

| Version | Rev. date | Responsible | Changes |
|---------|------------|-------------|----------------------------|
| 1.0.1 | 17/12/2009 | WS | New database |
| 1.0.2 | 13/06/2011 | WS | Changes in section 3,12,16 |