Printing date 21.02.2013

Version: 8

Revision: 21.02.2013

1 Identification of the substance/mixture and of the company/undertaking · 1.1 Product identifier • Trade name: Powdered Bleach 16% · Article number: UK5-0824 · 1.2 Relevant identified uses of the substance or mixture and uses advised against · Sector of Use SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen) · Application of the substance / the preparation Fabric washing preparation \cdot 1.3 Details of the supplier of the safety data sheet · Manufacturer/Supplier: Rexodan International Limited P.O. Box 24 Tanhouse Lane Widnes Cheshire WA8 ORB info@worldwidewashing.com Tel: +44(0)151 422 1100 Fax: +44(0)151 422 1111 · Further information obtainable from: **Customer Service** Tel: +44(0)151 422 1100 Fax: +44(0)151 422 1111 · 1.4 Emergency telephone number: **Customer Service** Tel: +44(0)151 422 1100 **2** Hazards identification · 2.1 Classification of the substance or mixture · Classification according to Directive 67/548/EEC or Directive 1999/45/EC Xn; Harmful R22. Harmful if swallowed. Xi; Irritant R36/37: Irritating to eyes and respiratory system. N; Dangerous for the environment R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R31: Contact with acids liberates toxic gas. · 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. · 2.2 Label elements · Labelling according to EU guidelines: The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials. Observe the general safety regulations when handling chemicals. · Code letter and hazard designation of product: Xn Harmful N Dangerous for the environment · Hazard-determining components of labelling: sodium dichloroisocyanurate, dihydrate · Risk phrases:

- 22 Harmful if swallowed.
- 31 Contact with acids liberates toxic gas.

GB

Printing date 21.02.2013

Version: 8

Revision: 21.02.2013

Trade name: Powdered Bleach 16%

| | (Contd. of pa |
|--|---------------|
| <i>36/37 Irritating to eyes and respiratory system.</i> | |
| 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. | |
| Safety phrases: | |
| 8 Keep container dry. | |
| 22 Do not breathe dust. | |
| 25 Avoid contact with eyes. | |
| 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. | |
| 29 Do not empty into drains. | |
| 36 Wear suitable protective clothing. | |
| 41 In case of fire and/or explosion do not breathe fumes. | |
| 57 Use appropriate container to avoid environmental contamination. | |
| 60 This material and its container must be disposed of as hazardous waste. | |
| 2.3 Other hazards | |

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

· 3.2 Chemical characterization: Mixtures

· Description: Mixture of substances listed below with nonhazardous additions.

| · Dangerous compone | ents: | |
|--------------------------|--|--------|
| CAS: 497-19-8 | sodium carbonate | 50-75% |
| EINECS: 207-838-8 | 🗙 Xi R36 | |
| | | |
| CAS: 51580-86-0 | sodium dichloroisocyanurate, dihydrate | 25-50% |
| EINECS: 220-767-7 | 🗙 Xn R22 | |
| | 🗙 Xi R36/37 | |
| | N R50/53 | |
| | <u>R3</u> 1 | |
| | line Aquatic Acute 1, H400; Aquatic Chronic 1, H410 | |
| | () Acute Tox. 4, H302; Eye Irrit. 2, H319; STOT SE 3, H335 | |
| · Additional information | ion · Ingrediënts according to detergents guideline EEC 89/542 · | |

Additional information; Ingredients according to detergents guideline EEC 89/542. For the wording of the listed risk phrases refer to section 16.

| chlorine-based bleaching agents | 15 - 30% |
|---------------------------------|----------|
| phosphates | 5 - 15% |

4 First aid measures

· 4.1 Description of first aid measures

· General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· After inhalation: Supply fresh air; consult doctor in case of complaints.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

- If skin irritation continues, consult a doctor.
- After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing: Call for a doctor immediately.
- 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.

5 Firefighting measures

- · 5.1 Extinguishing media
- Suitable extinguishing agents: CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- 5.2 Special hazards arising from the substance or mixture During heating or in case of fire poisonous gases are produced.

(Contd. on page 3)

Printing date 21.02.2013

Version: 8

Revision: 21.02.2013

Trade name: Powdered Bleach 16%

- · 5.3 Advice for firefighters
- · Protective equipment: Mount respiratory protective device.

6 Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Mount respiratory protective device.
- **6.2** Environmental precautions: Do not allow product to reach sewage system or any water course.
- Inform respective authorities in case of seepage into water course or sewage system.
- 6.3 Methods and material for containment and cleaning up: Dispose contaminated material as waste according to item 13.
- *Ensure adequate ventilation.* • **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.

7 Handling and storage

· 7.1 Precautions for safe handling Prevent formation of dust.

- · Information about fire and explosion protection: Keep respiratory protective device available.
- · 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: Do not store together with acids.
- Further information about storage conditions:
- Keep receptacle tightly sealed. Store in cool, dry conditions in well sealed receptacles.
- 7.3 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.

· 8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:

51580-86-0 sodium dichloroisocyanurate, dihydrate (25-50%)

WEL (Great Britain) Short-term value: 0.07 mg/m³ Long-term value: 0.02 mg/m³

Sen; as -NCO

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

- · 8.2 Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures: Immediately remove all soiled and contaminated clothing Avoid contact with the eyes. 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:



The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· 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.

(Contd. on page 4)

(Contd. of page 2)

Printing date 21.02.2013

Version: 8

Revision: 21.02.2013

(Contd. of page 3)

Trade name: Powdered Bleach 16%

· 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. The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended. • Not suitable are gloves made of the following materials: Strong material gloves

• Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

| · 9.1 Information on basic physical and chemical properties · General Information | | |
|--|---|--|
| · Appearance: | | |
| Form: | Powder | |
| Colour: | White | |
| · Odour: | Chlorine | |
| • pH-value (5 g/l) at $20^{\circ}C$: | 11.5 | |
| · Change in condition | | |
| Melting point/Melting range: | Not applicable | |
| Boiling point/Boiling range: | Not applicable | |
| · Flash point: | Not applicable. | |
| · Flammability (solid, gaseous): | Not determined. | |
| · Ignition temperature: | 250°C | |
| • Decomposition temperature: | Not determined. | |
| · Self-igniting: | Product is not selfigniting. | |
| • Danger of explosion: | Product does not present an explosion hazard. | |
| · Vapour pressure: | Not applicable. | |
| • Density at 20°C: | $0.9 \ g/cm^3$ | |
| · Vapour density | Not applicable. | |
| · Evaporation rate | Not applicable. | |
| · Solubility in / Miscibility with | | |
| water: | Soluble. | |
| · Segregation coefficient (n-octanol/water): Not determined. | | |
| · Viscosity: | | |
| Dynamic: | Not applicable. | |
| Kinematic: | Not applicable. | |
| · Solvent content: | | |
| Organic solvents: | 0.0 % | |
| Solids content: | 100.0 % | |
| • 9.2 Other information | No further relevant information available. | |

10 Stability and reactivity

· 10.1 Reactivity

· 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.

(Contd. on page 5)

GB

Printing date 21.02.2013

Version: 8

Revision: 21.02.2013

Trade name: Powdered Bleach 16%

· 10.6 Hazardous decomposition products: No dangerous decomposition products known.

(Contd. of page 4)

11 Toxicological information

· 11.1 Information on toxicological effects

• Acute toxicity:

· LD/LC50 values relevant for classification:

497-19-8 sodium carbonate

Oral LD50 4000 mg/kg (Rat)

| 51580-86-0 sodium dichloroisocyanurate, dihydrate | | | |
|---|-------------|--|--|
| Oral | LD50 | 1400 mg/kg (Rat) | |
| | - | ım triphosphate | |
| Oral | LD50 | 3020 mg/kg (Mouse) | |
| | | 3120 mg/kg (Rat) | |
| Dermal | LD50 | 3020 mg/kg (Mouse) 3120 mg/kg (Rat) >7940 mg/kg (Rabbit) 1150 mg/ltr (Daphnia magna (water flea)) | |
| | EC50 / 24 h | 1150 mg/ltr (Daphnia magna (water flea)) | |

LC50/48 h >1600 mg/ltr (Leuciscus idus)

· Primary irritant effect:

• on the skin: No irritant effect.

• 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: Harmful

Irritant

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.
- · Ecotoxical effects:
- · Remark: Very toxic for fish
- · Additional ecological information:

· General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water Do not allow product to reach ground water, water course or sewage system.

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

Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

- · 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

13 Disposal considerations

· 13.1 Waste treatment methods

• Recommendation Must not be disposed together with household waste. Do not allow product to reach sewage system.

(Contd. on page 6)

Printing date 21.02.2013

Version: 8

Revision: 21.02.2013

(Contd. of page 5)

Trade name: Powdered Bleach 16%

· Uncleaned packaging:

· Recommendation: Disposal must be made according to official regulations.

| Transport information | |
|---|--|
| 14.1 UN-Number | |
| ADR, IMDG, IATA | UN3077 |
| 14.2 UN proper shipping name | |
| ADR | 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. |
| | (sodium dichloroisocyanurate, dihydrate) |
| IMDG | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (sodium |
| | dichloroisocyanurate, dihydrate), MARINE POLLUTANT |
| IATA | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (sodiun dichloroisocyanurate, dihydrate) |
| | |
| 14.3 Transport hazard class(es) | |
| ADR | |
| \wedge \wedge | |
| | |
| | |
| 9 | |
| Class | 9 (M7) Miscellaneous dangerous substances and articles. |
| Label | 9 |
| IMDG, IATA | |
| | |
| | |
| Class | 9 Miscellaneous dangerous substances and articles. |
| Label | 9 Miscellaneous dangerous substances and articles. 9 |
| Label 14.4 Packing group | 9 |
| Label | |
| Label 14.4 Packing group | 9 III Product contains environmentally hazardous substances: sodium |
| Label 14.4 Packing group ADR, IMDG, IATA 14.5 Environmental hazards: | 9 III Product contains environmentally hazardous substances: sodium dichloroisocyanurate, dihydrate |
| Label 14.4 Packing group ADR, IMDG, IATA | 9 III Product contains environmentally hazardous substances: sodium dichloroisocyanurate, dihydrate Yes |
| Label 14.4 Packing group ADR, IMDG, IATA 14.5 Environmental hazards: Marine pollutant: | 9 III Product contains environmentally hazardous substances: sodium dichloroisocyanurate, dihydrate Yes Symbol (fish and tree) |
| Label 14.4 Packing group ADR, IMDG, IATA 14.5 Environmental hazards: Marine pollutant: Special marking (ADR): | 9 III Product contains environmentally hazardous substances: sodium dichloroisocyanurate, dihydrate Yes Symbol (fish and tree) Symbol (fish and tree) |
| Label 14.4 Packing group ADR, IMDG, IATA 14.5 Environmental hazards: Marine pollutant: Special marking (ADR): Special marking (IATA): | 9 III Product contains environmentally hazardous substances: sodium dichloroisocyanurate, dihydrate Yes Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree) |
| Label14.4 Packing groupADR, IMDG, IATA14.5 Environmental hazards:Marine pollutant:Special marking (ADR):Special marking (IATA):14.6 Special precautions for user | 9 III Product contains environmentally hazardous substances: sodium dichloroisocyanurate, dihydrate Yes Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree) Warning: Miscellaneous dangerous substances and articles. |
| Label14.4 Packing groupADR, IMDG, IATA14.5 Environmental hazards:Marine pollutant:Special marking (ADR):Special marking (IATA):14.6 Special precautions for userDanger code (Kemler): | 9 III Product contains environmentally hazardous substances: sodium dichloroisocyanurate, dihydrate Yes Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree) Warning: Miscellaneous dangerous substances and articles. 90 |
| Label14.4 Packing group ADR, IMDG, IATA14.5 Environmental hazards:Marine pollutant:Special marking (ADR): Special marking (IATA):14.6 Special precautions for user Danger code (Kemler): EMS Number: | 9 III Product contains environmentally hazardous substances: sodium dichloroisocyanurate, dihydrate Yes Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree) Warning: Miscellaneous dangerous substances and articles. 90 F-A,S-F |
| Label14.4 Packing groupADR, IMDG, IATA14.5 Environmental hazards:Marine pollutant:Special marking (ADR):Special marking (IATA):14.6 Special precautions for userDanger code (Kemler): | 9 III Product contains environmentally hazardous substances: sodium dichloroisocyanurate, dihydrate Yes Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree) Warning: Miscellaneous dangerous substances and articles. 90 F-A,S-F |
| Label 14.4 Packing group ADR, IMDG, IATA 14.5 Environmental hazards: Marine pollutant: Special marking (ADR): Special marking (IATA): 14.6 Special precautions for user Danger code (Kemler): EMS Number: 14.7 Transport in bulk according to Anne | 9 III Product contains environmentally hazardous substances: sodium dichloroisocyanurate, dihydrate Yes Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree) Warning: Miscellaneous dangerous substances and articles. 90 F-A,S-F ex II of |
| Label 14.4 Packing group ADR, IMDG, IATA 14.5 Environmental hazards: Marine pollutant: Special marking (ADR): Special marking (IATA): 14.6 Special precautions for user Danger code (Kemler): EMS Number: 14.7 Transport in bulk according to Anne MARPOL73/78 and the IBC Code Transport/Additional information: | 9 III Product contains environmentally hazardous substances: sodium dichloroisocyanurate, dihydrate Yes Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree) Warning: Miscellaneous dangerous substances and articles. 90 F-A,S-F ex II of |
| Label 14.4 Packing group ADR, IMDG, IATA 14.5 Environmental hazards: Marine pollutant: Special marking (ADR): Special marking (IATA): 14.6 Special precautions for user Danger code (Kemler): EMS Number: 14.7 Transport in bulk according to Anne MARPOL73/78 and the IBC Code Transport/Additional information: ADR | 9 III Product contains environmentally hazardous substances: sodium dichloroisocyanurate, dihydrate Yes Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree) Warning: Miscellaneous dangerous substances and articles. 90 F-A,S-F ex II of Not applicable. |
| Label 14.4 Packing group ADR, IMDG, IATA 14.5 Environmental hazards: Marine pollutant: Special marking (ADR): Special marking (IATA): 14.6 Special precautions for user Danger code (Kemler): EMS Number: 14.7 Transport in bulk according to Anne MARPOL73/78 and the IBC Code Transport/Additional information: | 9 III Product contains environmentally hazardous substances: sodium dichloroisocyanurate, dihydrate Yes Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree) Warning: Miscellaneous dangerous substances and articles. 90 F-A,S-F ex II of |

15 Regulatory information

 \cdot 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

• Labelling according to EU guidelines: The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials. Observe the general safety regulations when handling chemicals.

(Contd. on page 7)

Printing date 21.02.2013

Version: 8

Revision: 21.02.2013

Trade name: Powdered Bleach 16%

| | (Contd. of page 6) |
|--|--------------------|
| · Code letter and hazard designation of product: | |
| $\begin{array}{ c c c c }\hline \hline & Xn \ Harmful \\ N \ Dangerous \ for \ the \ environment \\ \end{array}$ | |
| · Hazard-determining components of labelling: sodium dichloroisocyanurate, dihydrate | |
| Risk phrases: 22 Harmful if swallowed. 31 Contact with acids liberates toxic gas. 36/37 Irritating to eyes and respiratory system. 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. | |
| Safety phrases: 8 Keep container dry. 22 Do not breathe dust. 25 Avoid contact with eyes. 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. 29 Do not empty into drains. 36 Wear suitable protective clothing. 41 In case of fire and/or explosion do not breathe fumes. 57 Use appropriate container to avoid environmental contamination. 60 This material and its container must be disposed of as hazardous waste. | |
| · National regulations: | |
| Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water. 15.2 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 features and shall not establish a legally valid contractual relationship. | specific product |
| Relevant phrasesH302Harmful if swallowed.H319Causes serious eye irritation.H335May cause respiratory irritation.H400Very toxic to aquatic life.H410Very toxic to aquatic life with long lasting effects. | |
| R22 Harmful if swallowed. R31 Contact with acids liberates toxic gas. R36 Irritating to eyes. R36/37 Irritating to eyes and respiratory system. | |

R36/37 Irritating to eyes and respiratory system. R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· Department issuing MSDS: Technical Department Tel: +44(0)151 422 1100 Fax: +44(0)151 422 1111

· Contact: Customer Service Tel: +44(0)151 422 1100 Fax: +44(0)151 422 1111

 \cdot * Data compared to the previous version altered.