

# PRODUCT SAFETY DATA SHEET



HEALTH • HYGIENE • HOME

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

### 1.1 Product identifier

FINISH Professional Liquid Regular

SDS number: D0001922

Code: 0058797 v5

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Automatic Dishwashing Detergent

Professional Use

### 1.3. Details of the Supplier of the Safety Data Sheet

#### The United Kingdom:

RB UK Hygiene Home Commercial Ltd

Wellcroft House

Wellcroft Road

Slough, Berkshire SL1 4AQ

Tel: 0800 376 8181

Email: [consumer.relations-ukroi@rb.com](mailto:consumer.relations-ukroi@rb.com)

#### The Republic Of Ireland:

RB Ireland Hygiene Home Commercial Ltd

7 Riverwalk

Citywest Business Campus

Dublin 24

Ireland

Tel: 01 661 7318

Email: [consumer.relations-ukroi@rb.com](mailto:consumer.relations-ukroi@rb.com)

### 1.4 Emergency telephone number

**GB - NHS 111/NHS 24** Tel: 111

**NI - [www.gpoutofhours.hscni.net/](http://www.gpoutofhours.hscni.net/)**

**IE - Poisons Information Centre of Ireland:** 01 809 2166 8am-10pm 7 days a week.

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Met. Corr. 1, H290

Skin Corr. 1, H314

Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** : May be corrosive to metals.  
Causes severe skin burns and eye damage.  
Harmful to aquatic life with long lasting effects.

#### Precautionary statements

**General** : Keep out of reach of children. If medical advice is needed, have product container or label at hand.

**Prevention** : Wear protective gloves/protective clothing/eye protection/face protection.

**Response** : IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off contaminated clothing. Rinse skin with water or shower. Immediately call a POISON CENTER or physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**Storage** : Store locked up.

**Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Hazardous ingredients** : Potassium hydroxide  
sodium hypochlorite

**Supplemental label elements** : Contains Potassium Hydroxide, Sodium Hypochlorite

Warning! Do not use together with other products. May release dangerous gases (chlorine).

Ingredient Declaration:

5 - <15% Phosphates

< 5 % Chlorine-based bleaching agents

< 5 % Polycarboxylate

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : None.

#### Special packaging requirements

**Containers to be fitted with child-resistant fastenings** : Yes, applicable.

**Tactile warning of danger** : Yes, applicable.

### 2.3 Other hazards

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## SECTION 2: Hazards identification

**Other hazards which do not result in classification** : None known.

**Additional guidance** : Do not mix with household chemicals . May release dangerous gases (chlorine).

## SECTION 3: Composition/information on ingredients

**3.2 Mixtures** : Mixture

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
Potassium hydroxide	REACH #: 01-2119487136-33 EC: 215-181-3 CAS: 1310-58-3 Index: 019-002-00-8	≥10 - ≤22	Met. Corr. 1, H290 Acute Tox. 4, H302 Skin Corr. 1A, H314 Eye Dam. 1, H318	[1]
Silicic acid, sodium salt	REACH #: 01-2119652761-37 EC: 215-687-4 CAS: 1344-09-8	< 2.5	Skin Corr. 1A, H314 Met Corr. 1, H290	[1]
sodium hypochlorite	EC: 231-668-3 CAS: 7681-52-9 Index: 017-011-00-1	< 2.5	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1) <b>See Section 16 for the full text of the H statements declared above.</b>	[1]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

### Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[5] Substance of equivalent concern

Occupational exposure limits, if available, are listed in Section 8.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

**Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

## SECTION 4: First aid measures

- Skin contact** : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

### 4.2 Most important symptoms and effects, both acute and delayed

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur
- Ingestion** : Adverse symptoms may include the following:  
stomach pains

### 4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

### 5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

## SECTION 5: Firefighting measures

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
phosphorus oxides  
halogenated compounds  
metal oxide/oxides

### 5.3 Advice for firefighters

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 6.2 Environmental precautions

: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

### 6.3 Methods and material for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.

**Large spill** : Stop leak if without risk. Move containers from spill area. Absorb spillage to prevent material damage. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

### 6.4 Reference to other sections

: See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from acids. Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

### 7.2 Conditions for safe storage, including any incompatibilities

Do not store above the following temperature: 50°C (122°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in corrosive resistant container with a resistant inner liner. Store locked up. Separate from acids. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

#### Seveso Directive - Reporting thresholds (in tonnes)

##### Named substances

Name	Notification and MAPP threshold	Safety report threshold
Mixtures of sodium hypochlorite classified as Aquatic Acute Category 1 [H400] containing less than 5 % active chlorine and not classified under any of the other hazard categories in Part 1 of Annex I.	200	500

**Do not store above the following temperature:** : 50 °C

### 7.3 Specific end use(s)

- Recommendations** : Professional uses  
Detergent for use in domestic automatic dishwashers
- Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

### 8.1 Control parameters

#### Occupational exposure limits

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**SECTION 8: Exposure controls/personal protection**

Product/ingredient name	Exposure limit values
Potassium hydroxide	<p><b>MZCR PEL/NPK-P (Czech Republic, 1/2013).</b> TWA: 1 mg/m<sup>3</sup> 8 hours. STEL: 2 mg/m<sup>3</sup> 15 minutes.</p> <p><b>AFS 2011:18 (Sweden, 12/2011).</b> TWA: 1 mg/m<sup>3</sup> 8 hours. Form: Inhalable fraction CEIL: 2 mg/m<sup>3</sup> 15 minutes. Form: Inhalable fraction</p> <p><b>INSHT (Spain, 1/2014).</b> STEL: 2 mg/m<sup>3</sup> 15 minutes.</p> <p><b>Arbejdstilsynet (Denmark, 10/2012).</b> CEIL: 2 mg/m<sup>3</sup></p> <p><b>Työterveyslaitos, Sosiaali- ja terveysministeriö (Finland, 3/2014).</b> CEIL: 2 mg/m<sup>3</sup></p> <p><b>NAOSH (Ireland, 12/2011).</b> OELV-15min: 2 mg/m<sup>3</sup> 15 minutes.</p> <p><b>SUVA (Switzerland, 1/2014).</b> TWA: 2 mg/m<sup>3</sup> 8 hours. Form: Inhalable fraction</p> <p><b>FOR-2011-12-06-1358 (Norway, 1/2013).</b> CEIL: 2 mg/m<sup>3</sup></p> <p><b>EH40/2005 WELs (United Kingdom (UK), 12/2011).</b> STEL: 2 mg/m<sup>3</sup> 15 minutes.</p> <p><b>25/2000. (IX. 30.) EüM-SzCsM együttes rendelet (Hungary, 12/2011).</b> TWA: 2 mg/m<sup>3</sup> 8 hours. PEAK: 2 mg/m<sup>3</sup> 15 minutes.</p> <p><b>Rozporządzenie Ministra Pracy i Polityki Społecznej (Dz.U. 2014 poz. 817) (Poland, 6/2014).</b> TWA: 0.5 mg/m<sup>3</sup> 8 hours. STEL: 1 mg/m<sup>3</sup> 15 minutes.</p> <p><b>Töökeskkonna keemiliste ohutegurite piirnõrmi määrus nr 293 (Estonia, 1/2008).</b> TWA: 2 mg/m<sup>3</sup> 8 hours.</p> <p><b>Instituto Português da Qualidade (Portugal, 11/2014).</b> CEIL: 2 mg/m<sup>3</sup></p> <p><b>Υπουργείο Εργασίας και Κοινωνικών Υποθέσεων (Greece, 2/2012).</b> TWA: 2 mg/m<sup>3</sup> 8 hours. STEL: 2 mg/m<sup>3</sup> 15 minutes.</p> <p><b>Lijst Grenswaarden / Valeurs Limites (Belgium, 4/2014).</b> M: 2 mg/m<sup>3</sup></p> <p><b>България Министерство на труда и социалната политика и Министерството на здравеопазването (Bulgaria, 1/2012).</b> Limit value 8 hours: 2 mg/m<sup>3</sup> 8 hours.</p> <p><b>HG 1218/2006 cu modificările și completările ulterioare (Romania, 1/2012).</b> VLA: 1 mg/m<sup>3</sup>, (expressed as sodium hydroxide) 8 hours. Short term: 3 mg/m<sup>3</sup>, (expressed as sodium hydroxide) 15 minutes</p> <p><b>РО МинЗдраСоц ПДК (Russian Federation, 9/2011).</b> CEIL: 0.5 mg/m<sup>3</sup>, (as sodium hydrocarbonate) Form: Aerosol</p> <p><b>GKV_MAK (Austria, 12/2011).</b> TWA: 2 mg/m<sup>3</sup> 8 hours. Form: Inhalable fraction</p> <p><b>MinGoRP GVI/KGVI (Croatia, 6/2013).</b> STELV: 2 mg/m<sup>3</sup> 15 minutes.</p> <p><b>Velferdarráðuneytið, Mengunarmarkaskrá (Iceland, 4/2009).</b> STEL: 2 mg/m<sup>3</sup> 15 minutes.</p> <p><b>Ministerio de Trabajo, Empleo y Seguridad Social (Argentina, 11/2003).</b> CEIL: 2 mg/m<sup>3</sup></p> <p><b>Ministerio de Salud - TLV (Peru, 7/2005).</b></p>

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**SECTION 8: Exposure controls/personal protection**

	CEIL: 2 mg/m <sup>3</sup> <b>Ministeri Tenaga Kerja dan Transmigrasi (Indonesia, 9/2014). Absorbed through skin.</b> STEL: 2 mg/m <sup>3</sup> 15 minutes. <b>Ministère du travail (France, 7/2012). Notes: Ministry of Labour (Brochure INRS Ed 984, July 2012). Indicative exposure limits</b> STEL: 2 mg/m <sup>3</sup> 15 minutes. <b>DOL OEL (South Africa, 8/1995). Notes: Recommended limit</b> STEL: 2 mg/m <sup>3</sup> 15 minutes.
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**Recommended monitoring procedures** : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**DNELs/DMELs**

Product/ingredient name	Type	Exposure	Value	Population	Effects
sodium hypochlorite	DNEL	Short term Inhalation	3.1 mg/m <sup>3</sup>	-	Systemic
	DNEL	Short term Inhalation	3.1 mg/m <sup>3</sup>	-	Local
	DNEL	Long term Inhalation	1.55 mg/m <sup>3</sup>	-	Systemic
	DNEL	Long term Inhalation	0.26 mg/m <sup>3</sup>	-	Systemic
	DNEL	Long term Inhalation	1.55 mg/m <sup>3</sup>	-	Local
	DNEL	Long term Dermal	0.5 mg/m <sup>3</sup>	-	Local

**PNECs**

Product/ingredient name	Compartment Detail	Value	Method Detail
sodium hypochlorite	Fresh water	0.21 µg/l	Assessment Factors
	Marine water	0.042 µg/l	Assessment Factors

**8.2 Exposure controls**

**Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Individual protection measures**

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

**Skin protection**



## SECTION 8: Exposure controls/personal protection

- Hand protection** : Use chemical resistant gloves classified under Standard EN374 - Protective gloves against chemicals and micro-organisms.
- Examples of preferred glove barrier materials include: Nitrile/butadiene rubber ("nitrile" or "NBR"); Chlorinated polyethylene; Butyl rubber; Polyethylene.
- Examples of acceptable glove barrier materials include: Natural rubber ("latex"); Neoprene; Viton; Ethyl vinyl alcohol laminate ("EVAL").
- A glove with a protection class of 4 or higher (breakthrough time greater than 120 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 1 or higher (breakthrough time greater than 10 minutes according to EN 374) is recommended.
- Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical/ chemical damage and poor maintenance.
- NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier. Considering the parameters specified by the glove manufacturer, checks during use should be carried out to ensure the gloves are still retaining their protective properties.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

- Physical state** : Liquid. [Viscous liquid.]
- Colour** : Colourless.
- Odour** : Chlorinated hydrocarbon odour.
- Odour threshold** : Not available.
- pH** : 11.8 to 12.6
- Melting point/freezing point** : Not available.
- Initial boiling point and boiling range** : Not available.
- Flash point** : Closed cup: >100°C
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.

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## SECTION 9: Physical and chemical properties

<b>Burning time</b>	: Not applicable.
<b>Burning rate</b>	: Not applicable.
<b>Upper/lower flammability or explosive limits</b>	: Not available.
<b>Vapour pressure</b>	: Not available.
<b>Vapour density</b>	: Not available.
<b>Density</b>	: 1.265 to 1.305 g/cm <sup>3</sup> [20°C]
<b>Solubility(ies)</b>	: Easily soluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/ water</b>	: Not available.
<b>Auto-ignition temperature</b>	: Not available.
<b>Decomposition temperature</b>	: Not available.
<b>Viscosity</b>	: Dynamic (room temperature): 100 mPa·s
<b>Explosive properties</b>	: Not available.
<b>Oxidising properties</b>	: Not available.
<b>Alkali. Test [g HCl/100g Product]</b>	: corrosive
<b>Corrosivity Remarks</b>	: Corrosive to metal

### 9.2 Other information

**Solubility in water** : Easily soluble in the following materials: Cold water and hot water.

No additional information.

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: The product may not be stable under certain conditions of storage or use. See "Possibility of Hazardous Reactions" for further information.
<b>10.3 Possibility of hazardous reactions</b>	: Hazardous reactions or instability may occur under certain conditions of storage or use. Contact with acids liberates toxic gas.
<b>10.4 Conditions to avoid</b>	: No specific data.
<b>10.5 Incompatible materials</b>	: Reactive or incompatible with the following materials: acids metals
<b>10.6 Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
<b>Instability Conditions</b>	: Keep away from heat and direct sunlight.
<b>Instability temperature</b>	: 50°C (122°F)

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
potassium hydroxide	LD50 Oral	Rat	273 mg/kg	-
sodium hypochlorite, solution	LD50 Oral	Rat	1100 mg/kg	-

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

#### Acute toxicity estimates

Route	ATE value
Oral	4402 mg/kg

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
potassium hydroxide	Eyes - Moderate irritant	Rabbit	-	24 hours 1 milligrams	-
	Skin - Severe irritant	Guinea pig	-	24 hours 50 milligrams	-
	Skin - Severe irritant	Human	-	24 hours 50 milligrams	-
Silicic acid, sodium salt	Skin - Severe irritant	Rabbit	-	24 hours 50 milligrams	-
	Eyes - Severe irritant	Rabbit	-	24 hours 10 milligrams	-
	Skin - Severe irritant	Rabbit	-	24 hours 500 milligrams	-
sodium hypochlorite, solution	Eyes - Mild irritant	Rabbit	-	1.31 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-

**Skin** : Based on Calculation method: Causes Severe Skin Burns (EU).

**Eyes** : Based on Calculation method: Causes serious eye damage.

**Respiratory** : Based on available data, the classification criteria are not met.

#### Sensitisation

No known effect according to our database.

**Skin** : Based on available data, the classification criteria are not met.

**Respiratory** : Based on available data, the classification criteria are not met.

#### Mutagenicity

No known effect according to our database.

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

#### Carcinogenicity

No known effect according to our database.

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

#### Reproductive toxicity

No known effect according to our database.

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

#### Teratogenicity

No known effect according to our database.

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

#### Specific target organ toxicity (single exposure)

## SECTION 11: Toxicological information

Product/ingredient name	Category	Route of exposure	Target organs
Silicic acid, sodium salt	Category 3	Not applicable.	Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

No known effect according to our database.

### Aspiration hazard

No known effect according to our database.

### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes severe burns.
- Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur
- Ingestion** : Adverse symptoms may include the following:  
stomach pains

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Potential chronic health effects

Not available.

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

**General** : No known significant effects or critical hazards.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

**Other information** : Not available.

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## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
potassium hydroxide	Acute LC50 80 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours
Silicic acid, sodium salt	Acute EC50 33.53 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
sodium hypochlorite, solution	Acute LC50 494000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 0.035 mg/l Fresh water	Daphnia - Ceriodaphnia dubia	48 hours
	Acute EC50 0.141 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 0.026 mg/l Marine water	Quail - Crassostrea virginica	48 hours
	Acute LC50 0.032 mg/l Marine water	Fish - Fresh water fish	96 hours
	Acute LC50 0.06 mg/l Fresh water	Fish - Fresh water fish	96 hours
	Acute NOEC 0.04 mg/l Fresh water	Fish - Fresh water fish	96 hours
	Chronic NOEC 0.007 mg/l Marine water	Daphnia - marine water invertebrate	-

**Conclusion/Summary** : Based on Calculation method: Harmful to aquatic life with long lasting effects.

### 12.2 Persistence and degradability

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

No known effect according to our database.

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
sodium hypochlorite, solution	-	-	Readily

### 12.3 Bioaccumulative potential

No known effect according to our database.

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

**PBT** : Not applicable.

**vPvB** : Not applicable.

### 12.6 Other adverse effects : No known significant effects or critical hazards.

Release of large quantities into water may cause a pH-change resulting in danger for aquatic life.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 13.1 Waste treatment methods

#### Product

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## SECTION 13: Disposal considerations

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** : Yes.

### European waste catalogue (EWC)

Waste code	Waste designation
20 01 15*	Alkalines





### Packaging

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

For long distance transport of bulk material or shrunk pallet take into consideration sections 7 and 10.

	ADR/RID	ADN	IMDG	IATA
<b>14.1 UN number</b>	UN3266	UN3266	UN3266	UN3266
<b>14.2 UN proper shipping name</b>	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (potassium hydroxide, sodium hypochlorite, solution, mixture)	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (potassium hydroxide, sodium hypochlorite, solution)	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (potassium hydroxide, sodium hypochlorite, solution)	Corrosive liquid, basic, inorganic, n.o.s. (potassium hydroxide, sodium hypochlorite, solution)
<b>14.3 Transport hazard class(es)</b>	8 	8 	8 	8 
<b>14.4 Packing group</b>	II	II	II	II
<b>14.5 Environmental hazards</b>	No.	No.	No.	No.
<b>Additional information</b>	<b>Hazard identification number</b> 80 <b>Limited quantity</b> 1 L <b>Special provisions</b> 274 <b>Tunnel code</b> (E)	<b>Special provisions</b> 274	<b>Emergency schedules (EmS)</b> F-A, S-B <b>Special provisions</b> 274	The environmentally hazardous substance mark may appear if required by other transportation regulations.

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## SECTION 14: Transport information

**14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## SECTION 15: Regulatory information

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

**EU Regulation (EC) No. 1907/2006 (REACH)**

**Annex XIV - List of substances subject to authorisation**

**Annex XIV**

None of the components are listed.

**Substances of very high concern**

None of the components are listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : None.

**Other EU regulations**

**Europe inventory** : All components are listed or exempted.

**Ozone depleting substances (1005/2009/EU)**

Not listed.

**Prior Informed Consent (PIC) (649/2012/EU)**

Not listed.

**Seveso Directive**

This product is controlled under the Seveso Directive.

**Named substances**

**Name**

Mixtures of sodium hypochlorite classified as Aquatic Acute Category 1 [H400] containing less than 5 % active chlorine and not classified under any of the other hazard categories in Part 1 of Annex I.

**15.2 Chemical safety assessment** : No Chemical Safety Assessment has been carried out.

## SECTION 16: Other information

✓ Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** : ATE = Acute Toxicity Estimate  
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
DMEL = Derived Minimal Effect Level  
DNEL = Derived No Effect Level  
EUH statement = CLP-specific Hazard statement  
PBT = Persistent, Bioaccumulative and Toxic  
PNEC = Predicted No Effect Concentration  
RRN = REACH Registration Number  
vPvB = Very Persistent and Very Bioaccumulative

**Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

Classification	Justification
Met. Corr. 1, H290 Skin Corr. 1, H314 Aquatic Chronic 3, H412	pH of material On basis of test data Calculation method

**Date of issue/Date of revision** : 12/20/2018

**Date of previous issue** : 09/07/2018

**Version** : 15/17

**Version** : 17.0

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## SECTION 16: Other information

### Full text of abbreviated H statements

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335i	May cause respiratory irritation.
H400	Very toxic to aquatic life.
EUH031	Contact with acids liberates toxic gas.

### Full text of classifications [CLP/GHS]

Acute Tox. 4, H302	ACUTE TOXICITY: ORAL - Category 4
Aquatic Acute 1, H400	AQUATIC TOXICITY (ACUTE) - Category 1
Eye Dam. 1, H318	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Met. Corr. 1, H290	CORROSIVE TO METALS - Category 1
Skin Corr. 1A, H314	SKIN CORROSION/IRRITATION - Category 1A
Skin Corr. 1B, H314	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2, H315	SKIN CORROSION/IRRITATION - Category 2
STOT SE 3, H335i	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE: INHALATION [Respiratory tract irritation] - Category 3
EUH031	Contact with acids liberates toxic gas.

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**Version** : 17.0

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**Revision comments** : Update of PSDS.

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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