

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
Contains Potassium Hydroxide. Sodium Hypochlorite

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

Detergent for use in domestic automatic dishwashers

1.3. Details of the Supplier of the Safety Data Sheet

The United Kingdom:

Reckitt Benckiser
Wellcroft House
Wellcroft Road
Slough
Berkshire
SL1 4AQ

The Republic Of Ireland:

Reckitt Benckiser Ireland Ltd
7 Riverwalk
Citywest Business Campus
Dublin 24
Ireland

1.4 Emergency telephone number

Only available during the following office hours: 09:00 - 17:00 weekdays

UK Contact Telephone: 0845 769 7079

ROI Contact Telephone: 01 661 7318

Contact Email: consumer.relations-ukroi@rb.com

Revision Date:

Revision

Replacing

1 April 2015

4

3522134703 04 Feb 2014

RB Ref No:

3522134704

Revisions: CLP classification added

Additional useful information

Product Format: Colourless liquid

UN Transport Code UN: 3266

Class & Packing Group 8 II

Proper Shipping Name CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (potassium hydroxide, Sodium hypochlorite)
Store below 50°C

Product Identification Code

i 3635-1002-GHS05

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]

Skin Corr. 1A, H314
 Aquatic Chronic 3, H412
 Met. Corr. 1, H290

Classification according to Directive 1999/45/EC [DPD]

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : C; R35

Human health hazards : Causes severe burns.

See Section 16 for the full text of the R phrases or 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 : Causes severe skin burns and eye damage.
 Harmful to aquatic life with long lasting effects.
 May be corrosive to metals.

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. Wear eye or face protection. Wear protective clothing.

Response : IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or physician. IF ON SKIN (or hair): Take off immediately all 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. Immediately call a POISON CENTER or physician.

Storage : Store locked up.

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

Hazard symbol or symbols :



Indication of danger : Corrosive

Risk phrases : R35- Causes severe burns.

Safety phrases : S1/2- Keep locked up and out of the reach of children.
 S24/25- Avoid contact with skin and eyes.
 S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.
 S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 S35- This material and its container must be disposed of in a safe way.

Hazardous ingredients (DPD) : Potassium hydroxide

Hazardous ingredients (CLP) : Potassium hydroxide

Supplemental label elements (DPD) : Warning! Do not use together with other products. May release dangerous gases (chlorine).

Supplemental label elements (CLP) : Warning! Do not use together with other products. May release dangerous gases (chlorine).

Special packaging requirements

Containers to be fitted with child-resistant fastenings : EN892
EN = European Standard (Norm)

Tactile warning of danger : EN/ISO 11683
EN = European Standard (Norm)

2.3 Other hazards

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

Additional information : Short term Skin Bleaching agent. IF ON SKIN: Rinse skin with water.

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

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture : Mixture

Product/ingredient name	Identifiers	%	Classification		Type
			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	
potassium hydroxide	EC: 215-181-3 CAS: 1310-58-3 Index: 019-002-00-8	10 - 15	Xn; R22 C; R35	Met. Corr. 1, H290 Acute Tox. 4, H302 Skin Corr. 1A, H314 Eye Dam. 1, H318	[1] [2]
Silicic acid, sodium salt	EC: 215-687-4 CAS: 1344-09-8	2.5 - 5	Xi; R41, R37/38	Skin Irrit. 2, H315 Eye Irrit. 1, H318 STOT SE 3, H335i	[1]
Sodium hypochlorite solution Cl active	EC: 231-668-3 CAS: 7681-52-9 Index: 017-011-00-1	< 2.5	C; R34 R31 N; R50 See Section 16 for the full text of the R-phrases declared above.	Skin Corr. 1B, H314 Eye Irrit. 2, H319 Aquatic Acute 1, H400 EUH031 See Section 16 for the full text of the H statements declared above.	[1]

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

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions : Not applicable.
on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

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 or vPvBs 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.
- 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.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Move to fresh air. 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.
- 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

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system.
- Skin contact** : Severely corrosive to the skin. Causes severe burns.
- Ingestion** : May cause burns to mouth, throat and stomach.

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.
- 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 : Material will produce a vigorous reaction under conditions of shock, pressure or temperature. In a fire or if heated, a pressure increase will occur and the container may burst.

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. First move people out of line-of-sight of the scene and away from windows. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. Do not fight fire when it reaches the material. Withdraw from fire and let it burn.

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. Fire-fighters' protective clothing will only provide limited protection.

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 spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor 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 spilled 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).

6.3 Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach 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 spilled 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 vapor or mist. Do not ingest. 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. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Do not reuse container.
- 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

- Storage** : Do not store above the following temperature: 50°C (122°F). Store in accordance with local regulations. Store in a segregated and approved area. 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 locked up. Eliminate all ignition sources. 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 unlabeled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

- Recommendations** : Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
- Industrial sector specific solutions** : Not available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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).

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
<p>Europe</p> <p>potassium hydroxide</p>	<p>AFS 2011:18 (Sweden, 12/2011). TWA: 1 mg/m³ 8 hours. Form: Inhalable dust CEIL: 2 mg/m³ 15 minutes. Form: Inhalable dust</p> <p>MZCR PEL/NPK-P (Czech Republic, 2/2012). TWA: 1 mg/m³ 8 hours. STEL: 2 mg/m³ 15 minutes.</p> <p>INSHT (Spain, 1/2012). STEL: 2 mg/m³ 15 minutes.</p> <p>РО МинЗдраСоц ПДК (Russian Federation, 9/2011). CEIL: 0.5 mg/m³, (as sodium hydrocarbonate) Form: aerosol</p> <p>Arbejdstilsynet (Denmark, 10/2012). CEIL: 2 mg/m³</p> <p>Työterveyslaitos, Sosiaali- ja terveysministeriö (Finland, 12/2011). CEIL: 2 mg/m³</p> <p>NAOSH (Ireland, 5/2010). OELV-15min: 2 mg/m³ 15 minutes.</p> <p>Arbeidstilsynet (Norway, 12/2011). CEIL: 2 mg/m³</p> <p>EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 2 mg/m³ 15 minutes.</p> <p>GBZ-2 (China, 4/2007). MAC: 2 mg/m³</p> <p>25/2000. (IX. 30.) EüM-SzCsM együttes rendelet (Hungary, 12/2011). TWA: 2 mg/m³ 8 hours. PEAK: 2 mg/m³ 15 minutes.</p> <p>Rozporządzenie Ministra Pracy i Polityki Społecznej (Dz. U. 2002 Nr 217, poz. 1833, z późn. zm.) (Poland, 12/2011). TWA: 0.5 mg/m³ 8 hours. STEL: 1 mg/m³ 15 minutes.</p> <p>Sotsiaalminister (Estonia, 10/2007). TWA: 2 mg/m³ 8 hours.</p> <p>Instituto Português da Qualidade (Portugal, 3/2007). CEIL: 2 mg/m³</p> <p>Υπουργείο Εργασίας και Κοινωνικών Υποθέσεων (Greece, 2/2012). TWA: 2 mg/m³ 8 hours. STEL: 2 mg/m³ 15 minutes.</p> <p>Lijst Grenswaarden / Valeurs Limites (Belgium, 11/2011). M: 2 mg/m³</p> <p>GKV_MAK (Austria, 12/2011). TWA: 2 mg/m³ 8 hours. Form: inhalable fraction</p> <p>SUVA (Switzerland, 1/2012). TWA: 2 mg/m³ 8 hours. Form: inhalable fraction</p> <p>България Министерство на труда и социалната политика и Министерството на здравеопазването (Bulgaria, 1/2012). Limit value 8 hours: 2 mg/m³ 8 hours.</p> <p>Ministerul Muncii, Familiei si Protectiei Sociale si Ministerul Sănătății (Romania, 1/2012). VLA: 1 mg/m³, (expressed as sodium hydroxide) 8 hours. Short term: 3 mg/m³, (expressed as sodium hydroxide) 15 minutes</p>

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. 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.

8.2 Manufacturer: Exposure controls

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor 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. Engineering controls may be required to control the primary or secondary risks associated with this product. Use explosion-proof ventilation equipment.

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

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Permeation level 6, Penetration level 3 following EN374, taking into consideration the exposure of chemicals given in chapter 3.

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 : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

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.]
Color	: Colorless.
Odor	: Characteristic.
Odor threshold	: Not available.
pH	: 13.55 to 13.95
Melting point/freezing point	: <0°C
Initial boiling point and boiling range	: >100°C
Flash point	: Closed cup: >100°C [flash point value based on ingredient data]
Evaporation rate	: Not available.
Flammability (solid, gas)	: Not available.
Burning time	: Not applicable.
Burning rate	: Not applicable.
Upper/lower flammability or explosive limits	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Density	: 1.265 to 1.305 g/cm ³ [20°C]
Solubility(ies)	: Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Dynamic (room temperature): 100 mPa·s
Explosive properties	: Not available.
Oxidizing properties	: Not available.
Alkali. Test [g HCl/100g Product]	: corrosive
Corrosivity Remarks	: Not available.

9.2 Other information

No additional information.

SECTION 10: STABILITY AND REACTIVITY

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : The product may not be stable under certain conditions of storage or use. See "Possibility of Hazardous Reactions" for further information.
- 10.3 Possibility of hazardous reactions** : Hazardous reactions or instability may occur under certain conditions of storage or use. Conditions may include the following: shock friction high temperature
Reactions may include the following: risk of explosion
Contact with acids liberates toxic gas.
- 10.4 Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Avoid shock and friction. Do not mix with: acids or oxidizing agents May release dangerous gases (chlorine).
- 10.5 Incompatible materials** : Do not mix with household chemicals
- 10.6 Hazardous decomposition products** : Hazardous decomposition products : carbon oxides , Various Organic chemicals.
- Instability Conditions** : Keep away from heat and direct sunlight.
- Instability temperature** : 50°C (122°F)

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

No known effect according to our database.

Acute toxicity estimates

Route	ATE value
Oral	4313.7 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	-
	Skin - Severe irritant	Rabbit	-	24 hours 50 milligrams	-
Silicic acid, sodium salt	Eyes - Severe irritant	Rabbit	-	24 hours 10 milligrams	-
	Skin - Severe irritant	Rabbit	-	24 hours 500 milligrams	-
Sodium hypochlorite	Eyes - Mild irritant	Rabbit	-	1.31 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-

Sensitization

No known effect according to our database.

Mutagenicity

No known effect according to our database.

Carcinogenicity

No known effect according to our database.

Reproductive toxicity

No known effect according to our database.

Teratogenicity

No known effect according to our database.

Specific target organ toxicity (single exposure)

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** : May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system.
- Skin contact** : Severely corrosive to the skin. Causes severe burns.
- Ingestion** : May cause burns to mouth, throat and stomach.

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 and also 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** : Not available.
- 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.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
potassium hydroxide Silicic acid, sodium salt	Acute LC50 80000 µg/l Fresh water	Fish - Gambusia affinis - Adult	96 hours
	Acute EC50 33.53 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
Sodium hypochlorite	Acute LC50 494000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1800000 µg/l Fresh water	Fish - Gambusia affinis - Adult	96 hours
	Acute EC50 46000 µg/l Marine water	Algae - Gracilaria tenuistipitata	4 days
	Acute LC50 56400 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 32 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 32 µg/l Marine water	Fish - Oncorhynchus kisutch - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Chronic NOEC 10000 µg/l Marine water	Algae - Gracilaria tenuistipitata	4 days
	Chronic NOEC 0.1 ppm Fresh water	Fish - Cyprinus carpio - Young	30 days

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.

12.3 Bioaccumulative potential

No known effect according to our database.

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : 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.

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

Methods of disposal : Waste must be disposed of in accordance with federal, state and local environmental control regulations. Waste packaging should be recycled.

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 minimized 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. Empty containers or liners may retain some product residues. Avoid dispersal of spilled 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
14.1 UN number	UN3266	UN3266	UN3266	UN3266
14.2 UN proper shipping name	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (potassium hydroxide, Sodium hypochlorite , mixture)	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (potassium hydroxide, Sodium hypochlorite)	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (potassium hydroxide, Sodium hypochlorite)	Corrosive liquid, basic, inorganic, n.o.s. (potassium hydroxide, Sodium hypochlorite)
14.3 Transport hazard class(es)	8 	8 	8 	8 
14.4 Packing group	II	II	II	II
14.5 Environmental hazards	No.	No.	No.	No.
Additional information	Hazard identification number 80 Limited quantity 1 L Special provisions 274 Tunnel code (E)	Special provisions 274	Emergency schedules (EmS) F-A, S-B Special provisions 274	-

SECTION 15: REGULATORY INFORMATION

Chemical Safety Assessment following regulation 1907/2006/EC: Not relevant.

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

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Integrated pollution prevention and control list (IPPC) - Air : Not listed

Integrated pollution prevention and control list (IPPC) - Water : Not listed

Integrated pollution prevention and control list (IPPC) - Air : Not listed

Integrated pollution prevention and control list (IPPC) - Water : Not listed

Integrated pollution prevention and control list (IPPC) - Air : Not listed

CMR Substances

None of the components are listed.

Storage code : 8

Storage code Reference: : TRGS 510 - Storage of hazardous substances in nonstationary containers

Hazard class for water : 2 Appendix No. 4

WGK: Notes : VwVwS (Administrative Regulation on the Classification of Substances hazardous to waters into Water Hazard Classes)

SECTION 16: OTHER INFORMATION

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

Key literature references and sources for data : Not available.

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

Skin Corr. 1A, H314
 Aquatic Chronic 3, H412
 Met. Corr. 1, H290

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

Classification	Justification
Skin Corr. 1A, H314	Calculation method
Aquatic Chronic 3, H412	Calculation method
Met. Corr. 1, H290	

Europe

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.

Full text of abbreviated R phrases : R22- Harmful if swallowed.
 R34- Causes burns.
 R35- Causes severe burns.
 R41- Risk of serious damage to eyes.
 R38- Irritating to skin.
 R31- Contact with acids liberates toxic gas.
 R50- Very toxic to aquatic organisms.

Full text of classifications [DSD/DPD] : C - Corrosive
 Xn - Harmful
 Xi - Irritant
 N - Dangerous for the environment

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