PRODUCT SAFETY DATA SHEET

HEALTH • HYGIENE • HOME

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

FINISH Quantum Max Lemon Sparkle

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:
RB UK Commercial Ltd
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

RB UK Contact Telephone: 0845 769 7079 **RB ROI Contact Telephone:** 01 661 7318
Only available during the following office hours: 09:00 - 17:00 weekdays
RB Contact Email: consumer.relations-ukroi@rb.com

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

Revision Date:	Revision	Replacing	RB Ref No:
24 March 2017	4	3562229803 01 Jan 2017	3562229804

Revisions: Formula change

Additional useful information

Product Format: White powder with red gel pill separated from a coloured gel inside a divided clear soluble box, approx. 18g

Product Identification Code
ⓘ03635-01049-GHS07

Proper Shipping Name Not Classified Dangerous for Transport
Store between 5°C and 30°C

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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]

Eye Irrit. 2, H319

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 : Warning

Hazard statements : Causes serious eye irritation.

Precautionary statements

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

Prevention : Wear eye or face protection. Wash hands thoroughly after handling.

Response : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Storage : Not applicable.

Disposal : Not applicable.

Hazardous ingredients (CLP) : Not applicable

Supplemental label elements (CLP) : Contains Subtilisin. May produce an allergic reaction.

P102: Keep out of reach of children
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice.
P101: If medical advice is needed, have product container or label at hand.

Ingredient Declaration:

5 - 15% oxygen-based bleaching agents
5 - 15% non-ionic surfactants
< 5% polycarboxylates
< 5 % phosphonates
Contains enzymes (Subtilisin, Amylase)
Contains perfumes (for all flankers)

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

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

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture : Mixture

Product/ingredient name	Identifiers	%	Classification 67/548/EEC	Classification Regulation (EC) No. 1272/2008 [CLP]	Type
disodium carbonate, compound with hydrogen peroxide (2:3)	REACH #: 01-2119457268-30 EC: 239-707-6 CAS: 15630-89-4	10 - 15	O; R8 Xn; R22 Xi; R41	Ox. Sol. 3, H272 Acute Tox. 4, H302 Eye Dam. 1, H318	[1]
Alcohols, C12-14, ethoxylated propoxylated	CAS: 68439-51-0	5 - 10	Xi; R36/38	Aquatic Chronic 3, H412	[1]
sodium carbonate	REACH #: 01-2119485498-19 EC: 207-838-8 CAS: 497-19-8 Index: 011-005-00-2	5 - 10	Xi; R36	Eye Irrit. 2, H319	[1]
(1-hydroxyethylidene) bisphosphonic acid, sodium salt	REACH #: 01-2119510382-52 EC: 249-559-4 CAS: 29329-71-3	2.5 - 5	Xn; R22 Xi; R36	Acute Tox. 4, H302 Eye Irrit. 2, H319	[1]
Silicic acid, sodium salt	REACH #: 01-2119448725-31 EC: 215-687-4 CAS: 1344-09-8	< 2.5	Xi; R41, R38	Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 (Respiratory tract irritation)	[1]
subtilisin	REACH #: 01-2119480434-38 EC: 232-752-2 CAS: 9014-01-1 Index: 647-012-00-8	0.25 - 1	Xn; R22 Xi; R41, R37/38 R42 N; R50	Skin Irrit. 2, H315 Eye Dam. 1, H318 Resp. Sens. 1, H334 STOT SE 3, H335 (Respiratory tract irritation)	[1]
Alcohols, C12-18, ethoxylated and propoxylated	REACH #: 02-2119548505-30 EC: 500-242-1 CAS: 69227-21-0	< 0.25	N; R50	Aquatic Acute 1, H400	[1]
			See Section 16 for the full text of the R-phrases declared above.	**See Section 16 for the full text of the H statements declared above.**	

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.

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 : 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. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Get medical attention if adverse health effects persist or are severe. 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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : 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. Get medical attention if adverse health effects persist or are severe. 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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact : No known significant effects or critical hazards.

Ingestion : Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

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.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
phosphorus oxides
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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. 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).

6.3 Methods and material for containment and cleaning up

Small spill : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor.

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 ingest. Avoid contact with eyes, skin and clothing. 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	:	Store between the following temperatures: 5 to 30°C (41 to 86°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. 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 unlabelled containers. Use appropriate containment to avoid environmental contamination.
Do not store above the following temperature:	:	40 °C
Recommended Storage Temperature for 3 weeks	:	<40 °C
Recommended Storage Temperature for up to 6 weeks	:	<30 °C
Recommended Storage Temperature for over 6 weeks	:	<30 °C

7.3 Specific end use(s)

Recommendations	:	Consumer uses Washing and cleaning products (including solvent based products)
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 Europe	Exposure limit values
subtilisin	**INSHT (Spain, 1/2014). Inhalation sensitiser.** STEL: 0.00006 mg/m³ 15 minutes. **Arbejdstilsynet (Denmark, 10/2012).** CEIL: 0.00006 mg/m³ **NAOSH (Ireland, 12/2011). Skin sensitiser.** OELV-8hr: 0.00006 mg/m³ 8 hours. OELV-15min: 0.00006 mg/m³ 15 minutes. **EH40/2005 WELs (United Kingdom (UK), 12/2011). Inhalation sensitiser.** TWA: 0.00004 mg/m³ 8 hours. **Töökeskkonna keemiliste ohutegurite piirnormid määrus nr 293 (Estonia, 1/2008). Skin sensitiser.** TWA: 1 g_u/m³ 8 hours. *: 3 g_u/m³ **Instituto Português da Qualidade (Portugal, 11/2014).** CEIL: 0.00006 mg/m³ **AFS 2011:18 (Sweden, 12/2011). Skin sensitiser.** CEIL: 3 gly/m3 15 minutes. TWA: 1 gly/m3 8 hours. **SUVA (Switzerland, 1/2014). Skin sensitiser.** STEL: 0.00006 mg/m³, (as crystalline active enzyme) 15 minutes. **MinGoRP GVI/KGVI (Croatia, 6/2013). Skin sensitiser.** ELV: 0.00004 mg/m³ 8 hours. **Velferdarráðuneytið, Mengunarmarkaskrá (Iceland, 4/2009). Skin sensitiser.** STEL: 0.00006 mg/m³ 15 minutes. **Norma Técnica Fondonorma (NTF) 2253 (VE, 12/2009). Skin sensitiser.** STEL: 0.00006 mg/m³ 15 minutes. **Työterveyslaitos, Sosiaali- ja terveysministeriö (Finland, 3/2014).** TWA: 0.015 mg/m³ 8 hours. CEIL: 0.06 mg/m³ **ACGIH TLV (United States, 4/2014).** C: 0.00006 mg/m³, (measured as 100% pure crystalline enzyme) **OSHA PEL 1989 (United States, 3/1989).** STEL: 0.00006 mg/m³ 60 minutes. **NIOSH REL (United States, 10/2013).** STEL: 0.00006 mg/m³ 60 minutes. **NOM-010-STPS (Mexico, 9/2000).** LMPE-Pico: 0.00006 mg/m³ **NZ OSH (New Zealand, 2/2013). Skin sensitiser.** WES-Ceiling: 0.00006 mg/m³, (measured as 100% pure crystalline enzyme) **DOSH USECHH (Malaysia, 4/2000).** CEIL: 0.00006 mg/m³ **Factories Order (PEL) (Singapore, 2/2006).** PEL (short term): 0.00006 mg/m³ 15 minutes. **CA Alberta Provincial (Canada, 4/2009).** C: 0.00006 mg/m³ **CA British Columbia Provincial (Canada, 2/2015). Skin sensitiser.** C: 0.00006 mg/m³, (as crystalline active enzyme)

	CA Quebec Provincial (Canada, 1/2014). STEV: 0.00006 mg/m³, (as 100% pure crystalline enzyme) 15 minutes. **Menteri Tenaga Kerja dan Transmigrasi (Indonesia, 9/2014).** CEIL: 0.00006 mg/m³ **CA Ontario Provincial (Canada, 1/2013).** C: 0.00006 mg/m³, (Dust) **Ministerio de Trabajo, Empleo y Seguridad Social (Argentina, 11/2003).** CEIL: 0.00006 mg/m³, (as pure crystalline active enzyme) **Ministerio de Salud - TLV (Peru, 7/2005).** CEIL: 0.00006 mg/m³
sodium carbonate	**HG 1218/2006 cu modificările şi completările ulterioare (Romania, 1/2012).** VLA: 1 mg/m³ 8 hours. Short term: 3 mg/m³ 15 minutes. **MZCR PEL/NPK-P (Czech Republic, 1/2013).** TWA: 5 mg/m³ 8 hours. STEL: 10 mg/m³ 15 minutes.

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.

Derived effect levels

Product/ingredient name	Type	Exposure	Value	Population	Effects
disodium carbonate, compound with hydrogen peroxide (2:3)	DNEL	Short term Dermal	6.4 mg/cm²	Consumers	-
	DNEL	Short term Dermal	12.8 mg/cm²	Workers	-
	DNEL	Short term Inhalation	5 mg/m³	Workers	Systemic

Predicted effect concentrations

Product/ingredient name	Type	Compartment Detail	Value	Method Detail
disodium carbonate, compound with hydrogen peroxide (2:3)	-	Sewage Treatment Plant	16.24 mg/l	-

8.2 Manufacturer: 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. 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.

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, particulate filter 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	:	Solid. [Tablets]
Colour	:	White. Red. Light Blue. or Blue. or Yellow. or Green.
Odour	:	Characteristic.
Odour threshold	:	Not available.
pH	:	10 [Conc. (% w/w): 10%]
Melting point/freezing point	:	Not available.
Initial boiling point and boiling range	:	Not available.
Flash point	:	Closed cup: >93.3°C
Evaporation rate	:	Not available.
Flammability (solid, gas)	:	Not available.
Burning time	:	Not available.
Burning rate	:	Not available.
Upper/lower flammability or explosive limits	:	Not available.
Vapour pressure	:	Not available.
Vapour density	:	Not available.
Density	:	Not available.
Solubility(ies)	:	Soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/ water	:	Not applicable.
Decomposition temperature	:	Not available.
Viscosity	:	Not applicable.
Explosive properties	:	Not available.
Oxidising properties	:	Not available.
tablet Weight or volume	:	15 - 20g
Corrosivity Remarks	:	Not available.

9.2 Other information

SADT	:	>55°C (50kg)

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 is stable. The product may not be stable under certain conditions of storage or use.
10.3 Possibility of hazardous reactions	:	Hazardous reactions or instability may occur under certain conditions of storage or use. Risk of exothermic decomposition at elevated temperatures, contact with other substances (such as acids, heavy-metal compounds or amines), friction or shock.
10.4 Conditions to avoid	:	Keep away from heat and direct sunlight / Moisture Do not mix with acids or oxidising agents
10.5 Incompatible materials	:	No specific data.
10.6 Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Instability Conditions	:	Do not store above the following temperature:40°C (104°F) For long distance transport Special shipping information Temperature control is required.at °C: 30 (86°F)
Instability temperature	:	Not available.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
disodium carbonate, compound with hydrogen peroxide (2:3)	LD50 Oral	Rat	1034 mg/kg	-
sodium carbonate	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	2800 mg/kg	-
(1-hydroxyethylidene) bisphosphonic acid, sodium salt	LD50 Oral	Rat	1100 mg/kg	-
subtilisin	LD50 Oral	Rat	1800 mg/kg	-

Conclusion/Summary : Based on Calculation method: No known significant effects or critical hazards.

Acute toxicity estimates

Route	ATE value
Oral	6568 mg/kg

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
sodium carbonate	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
Silicic acid, sodium salt	Eyes - Severe irritant	Rabbit	-	24 hours 10 milligrams	-
	Skin - Severe irritant	Rabbit	-	24 hours 500 milligrams	-
subtilisin	Eyes - Moderate irritant	Rabbit	-	3 milligrams	-

Skin : Based on Calculation method: No known significant effects or critical hazards.

Eyes : Based on Calculation method: Causes serious eye irritation.

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.

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)

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

Inhalation : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact : No known significant effects or critical hazards.

Ingestion : Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

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.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
disodium carbonate, compound with hydrogen peroxide (2:3)	Acute EC50 70 mg/l	Algae - Chlorella emersonii	240 hours
	Acute EC50 4.9 mg/l	Daphnia - Daphnia Pulex	48 hours
	Acute LC50 70.7 mg/l	Fish - Pimephales promelas	96 hours
sodium carbonate	Acute EC50 242000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute LC50 176000 µg/l Fresh water	Crustaceans - Amphipoda	48 hours
	Acute LC50 265000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 300000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours
(1-hydroxyethylidene) bisphosphonic acid, sodium salt	Acute EC50 >170 mg/l Fresh water	Daphnia - Daphnia magna	96 hours
	Acute LC50 >100 mg/l Fresh water	Fish - Salmo gairdneri - Adult	96 hours
Silicic acid, sodium salt	Acute EC50 33.53 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 494000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
subtilisin	Acute EC50 23.78 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
Alcohols, C12-18, ethoxylated and propoxylated	Acute EC50 0.1 to 1 mg/l	Aquatic plants	72 hours
	Acute EC50 0.1 to 1 mg/l Fresh water	Daphnia	48 hours
	Acute LC50 0.1 to 1 mg/l Fresh water	Fish - Leuciscus idus	96 hours

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.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
sodium carbonate	-	-	Readily
Alcohols, C12-18, ethoxylated and propoxylated	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
(1-hydroxyethylidene) bisphosphonic acid, sodium salt	-3.5	71	low
subtilisin	-3.1	-	low

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 : 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 29*	detergents containing hazardous substances

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

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.	not available
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.
Additional information	-	-	-	-

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

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.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code : Not available.

SECTION 15: REGULATORY INFORMATION

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	:	None.
Europe inventory	:	All components are listed or exempted.
Industrial emissions (integrated pollution prevention and control) - Air	:	Not listed
Industrial emissions (integrated pollution prevention and control) - Water	:	Not listed

CMR Substances

None of the components are listed.

Storage code	:	13
Storage code Reference:	:	TRGS 510 - Storage of hazardous substances in nonstationary containers
WGK: Notes	:	- for bulk material, not applicable for product in domestic pack sizes. Administrative Regulation on the Classification of Substances hazardous to waters into Water Hazard Classes (VwVwS)

15.2 Chemical safety assessment	:	Complete.

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]

Eye Irrit. 2, H319

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

Classification	Justification
Eye Irrit. 2, H319	Calculation method

Europe

Full text of abbreviated H statements :

H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H302 (oral)	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 (Respiratory tract irritation)	May cause respiratory irritation. (Respiratory tract irritation)
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS] :

Acute Tox. 4, H302	ACUTE TOXICITY (oral) - Category 4
Aquatic Acute 1, H400	ACUTE AQUATIC HAZARD - Category 1
Aquatic Chronic 3, H412	LONG-TERM AQUATIC HAZARD - Category 3
Eye Dam. 1, H318	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Ox. Sol. 3, H272	OXIDISING SOLIDS - Category 3
Resp. Sens. 1, H334	RESPIRATORY SENSITISATION - Category 1
Skin Irrit. 2, H315	SKIN CORROSION/IRRITATION - Category 2
STOT SE 3, H335 (Respiratory tract irritation)	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3

Full text of abbreviated R phrases : R8- Contact with combustible material may cause fire.
R22- Harmful if swallowed.
R41- Risk of serious damage to eyes.
R36- Irritating to eyes.
R38- Irritating to skin.
R36/38- Irritating to eyes and skin.
R37/38- Irritating to respiratory system and skin.
R42- May cause sensitisation by inhalation.
R50- Very toxic to aquatic organisms.

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

In no way does this document remove the need of the recipient of the product to fully understand and apply statutory requirements. It is the recipient's sole responsibility to take due precautions relative to the use made of the product. All information contained herein is only to assist the recipient in fulfilling their statutory duty connected with the use of hazardous materials.

This Document may be entitled Product Safety Data Sheet as required by REACH (Registration, Evaluation, Authorisation and restriction of Chemicals) Annex II OR Product Data Information Sheet where a product is not required to be supported by a full REACH compliant SDS (e.g. not classified as hazardous or out of scope, such as cosmetics). Changes from the previous version are given in Section 1.

This list of information must not be considered as exhaustive, and does not exonerate the recipient from taking other precautions described in documents other than those mentioned, concerning the storage and use of the product, for which they remain the sole person responsible.