

SAFETY DATA SHEET

Finish Ultimate Plus All in 1 Lemon



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

1.1 Product identifier

Product name : Finish Ultimate Plus All in 1 Lemon
SDS # : D8411015
Formulation # : FF3303431
Product type : Solid.

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

Identified uses

Machine dishwashing (powder, liquid, tablet) for consumer use

1.3 Details of the supplier of the safety data sheet

Supplier

The United Kingdom:

RB UK Commercial Ltd
103-105 Bath Road,
Slough, Berkshire
SL1 3UH
Tel: 0333 2005 345
Email: ConsumerCare_UK@reckitt.com

The Republic Of Ireland:

RB Ireland Hygiene Home Commercial Ltd
7 Riverwalk
Citywest Business Campus
Dublin 24
Ireland
Tel: 01 630 5249
Email: ConsumerHealth_IE@reckitt.com

1.4 Emergency telephone number

National advisory body/Poison Centre

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

NI - 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]

Skin Irrit. 2, H315

Eye Irrit. 2, H319

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.

D8411015

SECTION 2: Hazards identification

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

2.2 Label elements

Hazard pictograms

:



Signal word

: Warning

Hazard statements

: Causes skin irritation.
Causes serious eye irritation.

Precautionary statements

General

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

Prevention

: Not applicable.

Response

: IF ON SKIN: Wash with plenty of water. 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.

Storage

: Not applicable.

Disposal

: Not applicable.

Hazardous ingredients

: Not applicable.

Supplemental label elements

: Contains SUBTILISIN and amylase, α -. May produce an allergic reaction.

Special packaging requirements

Containers to be fitted with child-resistant fastenings

: Not applicable.

Tactile warning of danger

: Not applicable.

Ingredient declaration

15% or over but less than 30%: oxygen-based bleaching agents. 5% or over but less than 15%: non-ionic surfactants, phosphonates, polycarboxylates. less than 5%: enzymes perfumes (CITRONELLOL).

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification

: None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

: Mixture

D8411015

SECTION 3: Composition/information on ingredients

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
SODIUM CARBONATE	REACH #: 01-2119485498-19 EC: 207-838-8 CAS: 497-19-8 Index: 011-005-00-2	≥10 - ≤25	Eye Irrit. 2, H319	-	[1]
SODIUM CARBONATE PEROXIDE	REACH #: 01-2119457268-30 EC: 239-707-6 CAS: 15630-89-4	≥10 - <25	Ox. Sol. 3, H272 Acute Tox. 4, H302 Eye Dam. 1, H318	ATE [Oral] = 1034 mg/kg Eye Dam. 1, H318: C ≥ 25% Eye Irrit. 2, H319: 7.5% ≤ C < 25%	[1]
PPG-5-LAURETH-5	REACH #: Exempt CAS: 68439-51-0	≥10 - ≤13	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 3, H412	-	[1]
TETRASODIUM ETIDRONATE	REACH #: 01-2119647955-23 EC: 223-267-7 CAS: 3794-83-0	≥5 - ≤10	Acute Tox. 4, H302 Eye Irrit. 2, H319	ATE [Oral] = 940 mg/kg	[1]
SUBTILISIN	REACH #: 01-2119480434-38 EC: 232-752-2 CAS: 9014-01-1 Index: 647-012-00-8	≥0.3 - <1	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Resp. Sens. 1, H334 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	ATE [Oral] = 1800 mg/kg M [Acute] = 1	[1]
amylase, α-	EC: 232-565-6 CAS: 9000-90-2 Index: 647-015-00-4	≤0.1	Resp. Sens. 1, H334	-	[1]
POLYQUATERNIUM-2	REACH #: Exempt CAS: 68555-36-2	≤0.011	Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 See Section 16 for the full text of the H statements declared above.	M [Acute] = 10 M [Chronic] = 10	[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

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. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. 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

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- 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** : No specific fire or explosion hazard.

SECTION 5: Firefighting measures

Hazardous combustion 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. 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 spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized 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 : Move containers from spill area. 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. Approach 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. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

D8411015

SECTION 7: Handling and storage

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

Store between the following temperatures: 5 to 30°C (41 to 86°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. 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. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : Machine dishwashing (powder, liquid, tablet) for consumer use
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

No exposure limit value known.

Biological exposure indices

No exposure indices known.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
SODIUM CARBONATE	DNEL	Long term Inhalation	10 mg/m³	General population	Local
	DNEL	Short term Inhalation	10 mg/m³	General population	Local
	DNEL	Long term Inhalation	10 mg/m³	Workers	Local
SODIUM CARBONATE PEROXIDE	DNEL	Short term Inhalation	5 mg/m³	Workers	Local
	DNEL	Long term Inhalation	5 mg/m³	Workers	Local
	DNEL	Short term Dermal	6.4 mg/cm²	General population	Local
	DNEL	Long term Dermal	6.4 mg/cm²	General population	Local
	DNEL	Short term Dermal	12.8 mg/cm²	Workers	Local
TETRASODIUM ETIDRONATE	DNEL	Long term Dermal	12.8 mg/cm²	Workers	Local
	DNEL	Long term Oral	2.4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	4.2 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	10 mg/m³	General population	Local
	DNEL	Long term Inhalation	10 mg/m³	Workers	Local

D8411015

SECTION 8: Exposure controls/personal protection

SUBTILISIN amylase, α-	DNEL	Long term Inhalation	16.9 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	24 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	48 mg/kg bw/day	Workers	Systemic
	DMEL	Long term Inhalation	15 ng/m ³	General population	Local
	DMEL	Long term Inhalation	60 ng/m ³	Workers	Local
	DNEL	Long term Oral	1.8 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	3.6 mg/kg bw/day	General population	Systemic
	DMEL	Long term Inhalation	15 ng/m ³	General population	Local
	DMEL	Long term Inhalation	60 ng/m ³	Workers	Local

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
SODIUM CARBONATE PEROXIDE	Sewage Treatment Plant	16.24 mg/l	Assessment Factors
	Fresh water	0.035 mg/l	Assessment Factors
	Marine water	0.035 mg/l	Assessment Factors

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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 : EN 16523-1:2015
Tested for protection against chemical permeation.
Low chemical resistant or waterproof gloves.
(EN 16523-1:2015 supersedes EN 374-3:2003)
EN 374-2:2003
Tested for protection against liquid penetration and micro-organisms.
EN 388:2003
Tested for protection against mechanical risks (abrasion, blade cut resistance, tear resistance and puncture resistance).
ISO 374-1:2016/Type A
Protective glove with permeation resistance of at least 30 minutes each for at least 6 test chemicals.
ISO 374-1:2016/Type B
Protective glove with permeation resistance of at least 30 minutes each for at least 3 test chemicals.
ISO 374-1:2016/Type C
Protective glove with permeation resistance of at least 10 minutes for at least 1 test chemical.

D8411015

SECTION 8: Exposure controls/personal protection

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.

- 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

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : Solid. [multi-compartment capsule (Powder. Liquid. Gel)]
- Color** : White. Red. Yellow.
- Odor** : Fragrant.
- Melting point/freezing point** : Not relevant/applicable due to nature of the product.
- Initial boiling point and boiling range** : Not relevant/applicable due to nature of the product.
- Flammability (solid, gas)** : Not relevant/applicable due to nature of the product.
- Upper/lower flammability or explosive limits** : Not relevant/applicable due to nature of the product.
- Flash point** : Not relevant/applicable due to nature of the product.
- Auto-ignition temperature** : Not relevant/applicable due to nature of the product.
- Decomposition temperature** : Not relevant/applicable due to nature of the product.
- pH** : 9.7 to 10.7 [Conc. (% w/w): 10%]
- Viscosity** : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C): Not available.
- Solubility** :

Media	Result
cold water	Easily soluble
hot water	Easily soluble

- Partition coefficient n-octanol/ water (log Pow)** : Not relevant/applicable due to nature of the product.
- Vapor pressure** : Not relevant/applicable due to nature of the product.
- Vapor density** : Not relevant/applicable due to nature of the product.
- Particle characteristics**
- Median particle size** : Not relevant/applicable due to nature of the product.

9.2 Other information

D8411015

SECTION 9: Physical and chemical properties

9.2.1 Information with regard to physical hazard classes

SADT : >55°C
Heat of reaction : <300 J/g

9.2.2 Other safety characteristics

Not applicable.

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.
- 10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid : Keep away from heat and direct sunlight. Protect from moisture. Do not expose to temperatures exceeding 50 °C/122 °F. Special shipping information: For long distance transport - Temperature control is required. at 30°C
- 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.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
SODIUM CARBONATE	LD50 Dermal	Mouse - Female	2210 mg/kg	-
SODIUM CARBONATE PEROXIDE	LD50 Oral	Rat	2800 mg/kg	-
	LD50 Dermal	Rabbit	2001 mg/kg	-
PPG-5-LAURETH-5 TETRASODIUM ETIDRONATE	LD50 Oral	Rat	1034 mg/kg	-
	LD50 Oral	Rat	2001 mg/kg	-
	LD50 Dermal	Rabbit - Male, Female	2001 mg/kg	-
SUBTILISIN amylase, α-POLYQUATERNIUM-2	LD50 Oral	Rat	940 mg/kg	-
	LD50 Oral	Rat	1800 mg/kg	-
	LD50 Oral	Rat	>7500 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-

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

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
FIL,FINSH,SS NO BTA EU	4182.5	N/A	N/A	N/A	N/A
LEMON_FF3303431_D8411015_MULTI					
SODIUM CARBONATE	2800	5000	N/A	N/A	N/A
SODIUM CARBONATE PEROXIDE	1034	2001	N/A	N/A	N/A
PPG-5-LAURETH-5	2001	N/A	N/A	N/A	N/A
TETRASODIUM ETIDRONATE	940	2001	N/A	N/A	N/A
SUBTILISIN	1800	N/A	N/A	N/A	N/A

Irritation/Corrosion

D8411015

SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
SODIUM CARBONATE	Eyes - Mild irritant	Rabbit	-	0.5 minutes	-
	Eyes - Moderate irritant	Rabbit	-	100 mg 24 hours 100 mg	-
SUBTILISIN	Eyes - Moderate irritant	Rabbit	-	3 mg	-

Conclusion/Summary

- Skin** : Calculation method: Causes skin irritation.
- Eyes** : Calculation method: Causes serious eye irritation.
- Respiratory** : Based on available data, the classification criteria are not met.

Respiratory or skin sensitization

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

Mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

Teratogenicity

- 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
SUBTILISIN	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation.
- 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 or irritation
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
irritation
redness

D8411015

SECTION 11: Toxicological information

Ingestion : No specific data.

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 : 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.

Reproductive toxicity : No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
SODIUM CARBONATE	Acute EC50 242000 µg/l Fresh water Acute LC50 176000 µg/l Fresh water Acute LC50 265000 µg/l Fresh water Acute LC50 300000 µg/l Fresh water	Algae - <i>Navicula seminulum</i> Crustaceans - <i>Amphipoda</i> Daphnia - <i>Daphnia magna</i>	96 hours 48 hours 48 hours
SODIUM CARBONATE PEROXIDE SUBTILISIN	Acute EC50 4.9 mg/l Acute EC50 23.78 mg/l Fresh water	Daphnia - <i>Daphnia Pulex</i> Crustaceans - <i>Ceriodaphnia dubia</i> - Neonate	48 hours 48 hours
amylase, α-	Acute EC50 0.586 mg/l Chronic EC10 0.145 mg/l Acute EC50 3865 mg/l Fresh water	Daphnia Daphnia Crustaceans - <i>Ceriodaphnia dubia</i> - Neonate	48 hours 21 days 48 hours
POLYQUATERNIUM-2	Acute EC50 >0.01 mg/l	Daphnia	48 hours

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

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
SUBTILISIN POLYQUATERNIUM-2	OECD 301B OECD 306 306 Biodegradability in Seawater	100 % - Readily - 29 days <60 % - Not readily - 28 days	- -	- -

D8411015

SECTION 12: Ecological information

Conclusion/Summary : 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.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
POLYQUATERNIUM-2	-	-	Not readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
TETRASODIUM ETIDRONATE	-3	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

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

12.7 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 minimized 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 minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

D8411015

SECTION 13: Disposal considerations

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 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 or ID number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

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 Maritime transport in bulk according to IMO instruments : Not available.

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 authorization

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

Product/ingredient name	%	Designation [Usage]
trisodium 5-hydroxy-1-(4-sulphophenyl)-4-(4-sulphophenylazo)pyrazole-3-carboxylate	≤0.1	43
trisodium 1-(1-naphthylazo)-2-hydroxynaphthalene-4',6,8-trisulphonate	≤0.1	43

Labeling : Not applicable.

Other EU regulations

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

Not listed.

D8411015

SECTION 15: Regulatory information

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

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

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
Skin Irrit. 2, H315 Eye Irrit. 2, H319	Calculation method Calculation method

Full text of abbreviated H statements

H272 H302 H315 H317 H318 H319 H334 H335 H400 H410 H411 H412	May intensify fire; oxidizer. Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects. Toxic to aquatic life with long lasting effects. Harmful to aquatic life with long lasting effects.
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Full text of classifications [CLP/GHS]

Acute Tox. 4 Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 2 Aquatic Chronic 3 Eye Dam. 1 Eye Irrit. 2 Ox. Sol. 3 Resp. Sens. 1 Skin Irrit. 2 Skin Sens. 1 STOT SE 3	ACUTE TOXICITY - Category 4 AQUATIC HAZARD (ACUTE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 2 AQUATIC HAZARD (LONG-TERM) - Category 3 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 OXIDIZING SOLIDS - Category 3 RESPIRATORY SENSITIZATION - Category 1 SKIN CORROSION/IRRITATION - Category 2 SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3
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Date of printing

: 25/06/2025

D8411015

SECTION 16: Other information

Date of issue/ Date of revision : 23/06/2025
Date of previous issue : No previous validation
Version : 1

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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.