# SAFETY DATA SHEET

Finish Ultimate Plus All in 1 Lemon Sparkle

## 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 Sparkle

**SDS no.** : D8408451

**Formulation #** : 3276723, 3312099, 3311945, 3312099, 3316581, 3312812, 3312773, 3311088, 3324743, 3325332, 3325333, 3310498, 3311090

**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 Hygiene Home Commercial Ltd
Wellcroft House
Wellcroft Road
Slough, Berkshire
SL1 4AQ
Tel: 0800 376 8181
Email: ConsumerCare_UK@reckitt.com

**The Republic Of Ireland:**
RB Ireland Hygiene Home Commercial Ltd
7 Riverwalk
Citywest Business Campus
Dublin 24
Ireland
Tel: 01 661 7318
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.

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

## SECTION 2: Hazards identification

### 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.

**Ingredient Declaration:**

15 - <30% oxygen-based bleaching agents
5 - <15% non-ionic surfactants, polycarboxylates, phosphonates
Contains enzymes (subtilisin, α-amylase), perfumes (Citronellol)

**Special packaging requirements**

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

**Tactile warning of danger** : Not applicable.

### 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

| Product/ingredient name | Identifiers | % | Classification | Specific Conc. Limits, M-factors and ATEs | Type |
|---|---|---|---|---|---|
| | | | | | |

## SECTION 3: Composition/information on ingredients

| | | | | | |
|---|---|---|---|---|---|
| SODIUM CARBONATE | REACH #: 01-2119485498-19<br>EC: 207-838-8<br>CAS: 497-19-8<br>Index: 011-005-00-2 | ≥10 - ≤25 | Eye Irrit. 2, H319 | - | [1] |
| SODIUM CARBONATE PEROXIDE | REACH #: 01-2119457268-30<br>EC: 239-707-6<br>CAS: 15630-89-4 | ≥10 - <25 | Ox. Sol. 3, H272<br>Acute Tox. 4, H302<br>Eye Dam. 1, H318 | ATE [Oral] = 1034 mg/kg<br>Eye Dam. 1, H318: C ≥ 25%<br>Eye Irrit. 2, H319: 7.5% ≤ C < 25% | [1] |
| PPG-5-LAURETH-5 | REACH #: Exempt<br>CAS: 68439-51-0 | ≥10 - ≤12 | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Aquatic Chronic 3, H412 | - | [1] |
| TETRASODIUM ETIDRONATE | REACH #: 01-2119647955-23<br>EC: 223-267-7<br>CAS: 3794-83-0 | ≥5 - ≤10 | Acute Tox. 4, H302<br>Eye Irrit. 2, H319 | ATE [Oral] = 940 mg/kg | [1] |
| SUBTILISIN | REACH #: 01-2119480434-38<br>EC: 232-752-2<br>CAS: 9014-01-1<br>Index: 647-012-00-8 | ≥0.3 - <1 | Acute Tox. 4, H302<br>Skin Irrit. 2, H315<br>Eye Dam. 1, H318<br>Resp. Sens. 1, H334<br>STOT SE 3, H335<br>Aquatic Acute 1, H400<br>Aquatic Chronic 2, H411 | ATE [Oral] = 1800 mg/kg<br>M [Acute] = 1 | [1] [2] |
| amylase, α- | EC: 232-565-6<br>CAS: 9000-90-2<br>Index: 647-015-00-4 | ≤0.3 | Resp. Sens. 1, H334 | - | [1] |
| POLYQUATERNIUM-2 | REACH #: Exempt<br>CAS: 68555-36-2 | ≤0.012 | Skin Sens. 1, H317<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410<br>**See Section 16 for the full text of the H statements declared above.** | M [Acute] = 10<br>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
[2] Substance with a workplace exposure limit

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.

## SECTION 4: First aid measures

**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 spilt material. 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. 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 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. 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.

## 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 unlabelled 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

SUBTILISIN

**NAOSH (Ireland, 5/2021)** Sensitiser. Notes: Advisory Occupational Exposure Limit Values (OELVs)
OELV 8 hours: 0.00006 mg/m³ (measured as 100% pure crystalline enzyme.).
OELV 15 minutes: 0.00006 mg/m³ (measured as 100% pure crystalline enzyme.).

#### Biological exposure indices

No exposure indices known.

**Recommended monitoring procedures** : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

#### DNELs/DMELs

| Product/ingredient name | Type | Exposure | Value | Population | Effects |
|---|---|---|---|---|---|
| SODIUM 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 | Local |

## SECTION 8: Exposure controls/personal protection

| | | | | | |
|---|---|---|---|---|---|
| | | | | population | |
| | DNEL | Long term Dermal | 6.4 mg/cm² | General population | Local |
| | DNEL | Short term Dermal | 12.8 mg/cm² | Workers | Local |
| | DNEL | Long term Dermal | 12.8 mg/cm² | Workers | Local |
| TETRASODIUM ETIDRONATE | 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 |
| | DNEL | Long term Inhalation | 16.9 mg/m³ | 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 |
| SUBTILISIN | DMEL | Long term Inhalation | 15 ng/m³ | General population | Local |
| | DMEL | Long term Inhalation | 60 ng/m³ | 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 |
| amylase, α- | DMEL | Long term Inhalation | 15 ng/m³ | General population | Local |
| | DMEL | Long term Inhalation | 60 ng/m³ | 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**

## SECTION 8: Exposure controls/personal 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. 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)]

**Colour** : White. Yellow. Red.

**Odour** : Characteristic.

**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** : 10.1 [Conc. (% w/w): 10%]

## SECTION 9: Physical and chemical properties

**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.

**Vapour pressure** : Not relevant/applicable due to nature of the product.

**Vapour 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

#### 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 | - |
| | LD50 Oral | Rat | 2800 mg/kg | - |
| SODIUM CARBONATE PEROXIDE | LD50 Dermal | Rabbit | 2001 mg/kg | - |
| | LD50 Oral | Rat | 1034 mg/kg | - |
| PPG-5-LAURETH-5 | LD50 Oral | Rat | 2001 mg/kg | - |
| TETRASODIUM ETIDRONATE | LD50 Dermal | Rabbit - Male, Female | 2001 mg/kg | - |
| | LD50 Oral | Rat | 940 mg/kg | - |

## SECTION 11: Toxicological information

| | | | | |
|---|---|---|---|---|
| SUBTILISIN | LD50 Oral | Rat | 1800 mg/kg | - |
| amylase, α- | LD50 Oral | Rat | >7500 mg/kg | - |
| POLYQUATERNIUM-2 | 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 (vapours) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|---|---|---|---|---|---|
| FIL,FINSH,SSC PANDORA EU LEMON_3276723_D8408451_EU_Finish | 4174.4 | N/A | N/A | N/A | N/A |
| 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**

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|---|---|---|---|---|
| SODIUM CARBONATE | Eyes - Mild irritant | Rabbit | - | 0.5 minutes 100 mg | - |
| | Eyes - Moderate irritant | Rabbit | - | 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.

## SECTION 11: Toxicological information

**Information on 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

**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.

**Reproductive toxicity** : No known significant effects or critical hazards.

### 11.2 Information on other hazards

#### 11.2.1 Endocrine disrupting properties

#### 11.2.2 Other information

Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

## SECTION 12: Ecological information

| Product/ingredient name | Result | Species | Exposure |
|---|---|---|---|
| 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 |
| SODIUM CARBONATE PEROXIDE | Acute EC50 4.9 mg/l | Daphnia - *Daphnia Pulex* | 48 hours |
| SUBTILISIN | Acute EC50 23.78 mg/l Fresh water | Crustaceans - *Ceriodaphnia dubia* - Neonate | 48 hours |
| | Acute EC50 0.586 mg/l | Daphnia | 48 hours |
| | Chronic EC10 0.145 mg/l | Daphnia | 21 days |
| amylase, α- | Acute EC50 3865 mg/l Fresh water | Crustaceans - *Ceriodaphnia dubia* - Neonate | 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 | OECD 301B | 100 % - Readily - 29 days | - | - |
| POLYQUATERNIUM-2 | OECD 306 306 Biodegradability in Seawater | <60 % - Not readily - 28 days | - | - |

**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

### 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 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** : The classification of the product may meet the criteria for a hazardous waste.

**Packaging**

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

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

## SECTION 14: Transport information

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

| | ADR/RID | ADN | IMDG | IATA |
|---|---|---|---|---|
| **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 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

| Product/ingredient name | % | Designation [Usage] |
|---|---|---|
| trisodium 5-hydroxy-1-(4-sulphophenyl)-4-(4-sulphophenylazo)pyrazole-3-carboxylate | ≤0.1 | 43 |

**Labelling** : Not applicable.

#### Other EU regulations

**Explosive precursors** : Not applicable.

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

Not listed.

##### 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<br>Eye Irrit. 2, H319 | Calculation method<br>Calculation method |

#### Full text of abbreviated H statements

## SECTION 16: Other information

| | |
|---|---|
| H272 | May intensify fire; oxidiser. |
| H302 | Harmful if swallowed. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |

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

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

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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.**