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

1.1 Product identifier

Product Form
Mixture

Product Name
Viakal Limescale Remover Spray.

Product Identifier
91492565_A_PGP_CLP_EUR

Synonyms
PA00210540

Product group
Trade Product

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

Recommended Use
Restricted to professional users

Main user category
SU 22 - Professional uses

Use category
PC35 - Washing and cleaning products (including solvent based products)

Uses advised against
No information available

Product category
Specialty Cleaners Liquid

1.3 Details of the supplier of the safety data sheet

Details of the supplier of the safety data sheet
Procter & Gamble UK Brooklands, Weybridge, Surrey, KT13 0XP, UK Tel: 01932 896000 Fax: 01932 896200

E-mail Address
pgsds.im@pg.com

1.4 Emergency Telephone Number

Emergency Telephone
(UK) Emergency Tel: 0800 328 8304 (IRL) Emergency Tel: 1800 509 497

Section 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Skin corrosion/irritation
Category 2 - (H315)

Serious eye damage/eye irritation
Category 2 - (H319)

For the full text of the H-Statements mentioned in this Section, see Section 16.

Adverse human health effects and symptoms
No information available

2.2 Label elements

Label according to Regulation (EC) No. 1272/2008

Signal Word
WARNING

Hazard Statements
H315 - Causes skin irritation
Precautionary Statements

P102 - Keep out of reach of children
P101 - If medical advice is needed, have product container or label at hand
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P302 + P352 - IF ON SKIN: Wash with plenty of water
P260 - Do not breathe spray
Do not mix with bleach or other cleaning products

2.3 Other hazards

Other hazards which do not result in classification
No presence of PBT and vPvB ingredients

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
Not applicable.

3.2 Mixtures

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>EC-No</th>
<th>REACH Registration No</th>
<th>Weight-%</th>
<th>GHS / CLP Classification 1272/2008 [CLP]</th>
<th>M-Factor (chronic)</th>
<th>M-Factor (acute)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formic Acid</td>
<td>64-18-6</td>
<td>200-579-1</td>
<td></td>
<td>1 - 5</td>
<td>Flam. Liq. 3 (H226) Acute Tox. 4 (Oral) (H302) Acute Tox. 3 (Inhalation) (H331) Skin Corr. 1A (H314)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Deceth-8</td>
<td>26183-52-8</td>
<td>Polymer</td>
<td></td>
<td>1 - 5</td>
<td>Acute Tox. 4 (Oral) (H302) Eye Dam. 1 (H318)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Citric Acid</td>
<td>77-92-9</td>
<td>201-069-1</td>
<td>01-2119457026-42</td>
<td>1 - 5</td>
<td>Eye Irrit. 2 (H319)</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

For the full text of the H-Statements mentioned in this Section, see Section 16.

Section 4: FIRST AID MEASURES

4.1 Description of first-aid measures

Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if exposed or you feel unwell.

Skin contact
IF ON SKIN: Wash with plenty of water and soap. Take off contaminated clothing and wash before reuse. If skin irritation or rash occurs: Get medical advice/attention. Discontinue use of product.

Eye contact
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Ingestion
IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation
Coughing, Sneezing, Headache, Drowsiness, Dizziness, Shortness of breath.

Symptoms/injuries after skin contact
Redness, Swelling, Dryness, Itching.

Symptoms/injuries after eye contact
Severe pain, Redness, Swelling, Blurred vision.

Symptoms/injuries after ingestion
Oral mucosal or gastro-intestinal irritation, Nausea, Vomiting, Excessive secretion, Diarrhea.

4.3 Indication of any immediate medical attention and special treatment needed
Refer to section 4.1

Section 5: FIRE FIGHTING MEASURES
Section 5: TRANSPORT

5.1 Extinguishing media
Suitable extinguishing media
Dry chemical powder. Alcohol resistant foam. Carbon dioxide (CO2).
Extinguishing Media Which Must Not Be Used For Safety Reasons
Not applicable.

5.2 Special hazards arising from the substance or mixture
Fire Hazard
No fire hazard. Non-combustible.
Explosion hazard
Product is not explosive.
Reactivity
No dangerous reaction known under conditions of normal use.

5.3 Advice for firefighters
Special protective equipment for fire-fighters
No specific firefighting instructions required.
Protective equipment and precautions for firefighters
In case of inadequate ventilation wear respiratory protection.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
For non-emergency personnel
Wear suitable gloves and eye/face protection.
Advice for emergency responders
Wear suitable gloves and eye/face protection.

6.2 Environmental precautions
Environmental precautions
Consumer products ending up down the drain after use. Prevent soil and water pollution. Prevent spreading in sewers.

6.3 Methods and materials for containment and cleaning up
Methods for containment
Scoop absorbed substance into closing containers.
Methods for cleaning up
Small quantities of liquid spill:. take up in non-combustible absorbent material and shovel into container for disposal. Large Spills:. contain released substance, pump into suitable containers. This material and its container must be disposed of in a safe way, and as per local legislation.

Other information
Not applicable.

6.4 Reference to other sections
Other information
Refer to Sections 8 and 13.

Section 7: HANDLING AND STORAGE

7.1 Precautions for safe handling
Advice on safe handling
Avoid contact with eyes. Avoid contact with skin. Do not eat, drink or smoke when using this product. Do not handle until all safety precautions have been read and understood.

7.2 Conditions for safe storage, including any incompatibilities
Technical measures/Storage conditions
Store in original container. Refer to section 10.
Incompatible products
Refer to section 10.
Incompatible materials
Refer to section 10.
Prohibitions on mixed storage
Not applicable.
Requirements for storage rooms and containers
Store in a cool area. Store in a dry area.

7.3. Specific end use(s)
Specific end uses
Refer to section 1.2.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
National Occupational Exposure Limits
No information available
Derived No Effect Level (DNEL)

Consumers

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Formic Acid</td>
<td>64-18-6</td>
<td>9.5 mg/m³</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Predicted No Effect Concentration (PNEC)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Fresh Water</th>
<th>Marine water</th>
<th>Intermittent release</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formic Acid</td>
<td>64-18-6</td>
<td>2 mg/L</td>
<td>0.2 mg/L</td>
<td>1 mg/L</td>
</tr>
<tr>
<td>Citric Acid</td>
<td>77-92-9</td>
<td>0.44 mg/L</td>
<td>0.044 mg/L</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Freshwater sediment</th>
<th>Marine sediment</th>
<th>Sewage treatment plant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formic Acid</td>
<td>64-18-6</td>
<td>13.4 mg/kg</td>
<td>1.34 mg/kg</td>
<td>7.2 mg/L</td>
</tr>
<tr>
<td>Citric Acid</td>
<td>77-92-9</td>
<td>34.6 mg/kg sediment dw</td>
<td>3.46 mg/kg sediment dw</td>
<td>1000 mg/L</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Soil</th>
<th>air</th>
<th>Oral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formic Acid</td>
<td>64-18-6</td>
<td>1.5 mg/kg soil dw</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Citric Acid</td>
<td>77-92-9</td>
<td>33.1 mg/kg soil dw</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Appropriate engineering controls: No information available.

Personal protective equipment:

Protective personal equipment only required in case of professional use or for large packs (not for household packs). For consumer use please follow recommendation as indicated on the label of the product.

Hand Protection: Wear suitable gloves.

Eye Protection: Wear eye/face protection.

Skin and Body Protection: Wear suitable gloves.

Respiratory Protection: Not applicable.

Thermal hazards: Not applicable.

Environmental exposure controls: Prevent that the undiluted product reaches surface waters.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value / Units</th>
<th>Test Method / Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid</td>
<td></td>
</tr>
<tr>
<td>Physical State @20°C</td>
<td>Liquid</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Coloured</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>pleasant (perfume)</td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
<td>Perceived odor at typical use conditions</td>
</tr>
<tr>
<td>pH</td>
<td>2.2</td>
<td></td>
</tr>
</tbody>
</table>
### Section 10: STABILITY AND REACTIVITY

#### 10.1 Reactivity

No dangerous reactions known.

#### 10.2 Chemical stability

Stable under normal conditions.

#### 10.3 Possibility of hazardous reactions

See section 10.1 on reactivity for more information.

#### 10.4 Conditions to Avoid

None under normal use conditions.

#### 10.5 Incompatible materials

Not applicable.

#### 10.6 Hazardous Decomposition Products

None under normal use conditions.

### Section 11: TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

**Mixture**

<table>
<thead>
<tr>
<th>Acute toxicity</th>
<th>Not Classified. Based on the available data, the classification criteria are not met.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin corrosion/irritation</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>Not Classified. Based on the available data, the classification criteria are not met.</td>
</tr>
<tr>
<td>Respiratory sensitization</td>
<td>Not Classified. Based on the available data, the classification criteria are not met.</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Not Classified. Based on the available data, the classification criteria are not met.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not Classified. Based on the available data, the classification criteria are not met.</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Not Classified. Based on the available data, the classification criteria are not met.</td>
</tr>
</tbody>
</table>
STOT - single exposure  Not Classified. Based on the available data, the classification criteria are not met.
STOT - repeated exposure Not Classified. Based on the available data, the classification criteria are not met.
Aspiration hazard Not Classified. Based on the available data, the classification criteria are not met.

Substances in the mixture

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citric Acid</td>
<td>77-92-9</td>
<td>5400 mg/kg bw (OECD 401)</td>
<td>&gt; 2000 mg/kg bw (OECD 402)</td>
<td>-</td>
</tr>
</tbody>
</table>

Section 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Ecotoxicity effects  No known adverse effects on the functioning of water treatment plants under normal use conditions as recommended. The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Acute toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Toxicity to Fish (LC50)*</th>
<th>Toxicity to algae (EC50)*</th>
<th>Toxicity to daphnia and other aquatic invertebrates (EC50)*</th>
<th>Toxicity to Microorganisms (EC50)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formic Acid</td>
<td>64-18-6</td>
<td>46 - 100 mg/L (Leuciscus idus melanotus)</td>
<td>26.9 mg/L (Desmodesmus subspicatus (green algae))</td>
<td>120 mg/L (Daphnia magna)</td>
<td>46.7 mg/L (Guideline: German Industrial Standard DIN 38412, Part 8; Pseudomonas putida; static; freshwater)</td>
</tr>
<tr>
<td>Citric Acid</td>
<td>77-92-9</td>
<td>440 mg/L (OECD 203; Leuciscus idus melanotus; 48 h)</td>
<td>-</td>
<td>1535 mg/L (Daphnia magna; 24 h)</td>
<td>-</td>
</tr>
</tbody>
</table>

Chronic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Toxicity to algae (NOEC or ECx)*</th>
<th>Toxicity to fish (NOEC or ECx)*</th>
<th>Toxicity to Microorganisms (NOEC or ECx)*</th>
<th>Toxicity to daphnia and other aquatic invertebrates (NOEC or ECx)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formic Acid</td>
<td>64-18-6</td>
<td>&lt; 76.8 mg/L (Read across data on ammonium formate; OECD 201; Pseudokirchnerella subcapitata; static; freshwater)</td>
<td>72 mg/L (EU Method C.3; activated sludge; domestic; static; freshwater)</td>
<td>&gt;100 mg/L (OECD 211; Daphnia magna; semi-static; freshwater)</td>
<td></td>
</tr>
<tr>
<td>Citric Acid</td>
<td>77-92-9</td>
<td>425 mg/L (Scenedesmus quadricauda; 8 d)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability

Persistence and degradability

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Persistence and degradability</th>
<th>Ready Biodegradation Test (OECD 301)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formic Acid</td>
<td>64-18-6</td>
<td>Biodegradable</td>
<td>100 % (OECD 301 C; O2 consumption; 14 d; mixture of sewage, soil and natural water; aerobic)</td>
</tr>
<tr>
<td>Citric Acid</td>
<td>77-92-9</td>
<td>Biodegradable</td>
<td>100% DOC; OECD 301 E; 19 d; &gt; 60% (10 d)</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential

Bioaccumulative potential

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Bioaccumulative potential</th>
<th>Octanol/water partition coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formic Acid</td>
<td>64-18-6</td>
<td>Not expected to bioaccumulate due to the low log Kow (log Kow &lt; 4)</td>
<td>-1.9</td>
</tr>
<tr>
<td>Citric Acid</td>
<td>77-92-9</td>
<td>Not expected to bioaccumulate due to the low log Kow (log Kow &lt; 4)</td>
<td>-1.55</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil

Page 6 / 9
12.5 Results of PBT and vPvB assessment
PBT and vPvB assessment This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects
Other adverse effects No information available.

Section 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Waste from Residues/Unused Products Dispose of in accordance with local regulations.

Disposal Recommendations The waste codes/waste designations below are in accordance with EWC. Waste must be delivered to an approved waste disposal company. Waste is to be kept separate from other types of waste until its disposal. Do not throw waste product into the sewer. Where possible recycling is preferred to disposal or incineration. Empty, uncleaned packaging need the same disposal considerations as filled packaging. For handling waste, see measures described in section 7.

EWC Waste Disposal No 20 01 29* - detergents containing dangerous substances 15 01 10* - packaging containing residues of or contaminated by dangerous substances

Section 14: TRANSPORT INFORMATION

IMDG
14.1 UN Number Not applicable
14.2 UN Proper shipping name Not applicable
14.3 Transport hazard class(es) Not applicable
14.4 Packing Group Not applicable
14.5 Environmental Hazards Not applicable
14.6 Special precautions for user Not applicable
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

IATA
14.1 UN no Not applicable
14.2 UN Proper shipping name Not applicable
14.3 Hazard Class Not applicable
14.4 Packing Group Not applicable
14.5 Environmental Hazards Not applicable
14.6 Special precautions for user Not applicable

ADR
14.1 UN no Not applicable
14.2 UN Proper shipping name Not applicable
14.3 Hazard Class Not applicable
14.4 Packing Group Not applicable
14.5 Environmental Hazards Not applicable
14.6 Special precautions for user Not applicable

RID
14.1 UN no Not applicable
14.2 UN Proper shipping name Not applicable
14.3 Hazard Class Not applicable
14.4 Packing Group Not applicable
14.5 Environmental Hazards Not applicable
14.6 Special precautions for user Not applicable
ADN
14.1 UN no Not applicable
14.2 UN Proper shipping name Not applicable
14.3 Hazard Class Not applicable
14.4 Packing Group Not applicable
14.5 Environmental Hazards Not applicable
14.6 Special precautions for user Not applicable

Section 15: REGULATORY INFORMATION

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

EU Regulations
Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended
Contains no REACH substances with Annex XVII restrictions.

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended
Contains no substance on the REACH candidate list.

Regulation (EC) No. 143/2011 Annex XIV Substances Subject to Authorisation
Contains no REACH Annex XIV substances.

CESIO Recommendations
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.

Other regulations, restrictions and prohibition regulations

National regulatory information
No information available

15.2 Chemical Safety Assessment
No chemical safety assessment has been carried out for this mixture per REACH regulation.

Section 16: OTHER INFORMATION

16.1 Indication of changes
Issuing Date: 06-Apr-2018
Revision Date: 06-Apr-2018
Reason for revision Not applicable

16.2 Abbreviations and acronyms
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ATE: Acute Toxicity Estimate
DNEL: Derived No Effect Level
IATA: International Air Transport Association
LC50: Lethal Concentration to 50% of a test population
LD50: Lethal Dose to 50% of a test population (Median Lethal Dose)
OEL: Occupational Exposure Limit
PBT: Persistent, Bioaccumulative and Toxic substance
PNEC(s): Predicted No Effect Concentration(s)
REACH: Registration, Evaluation and Authorization of Chemicals
vPvB: Very Persistent and Very Bioaccumulative

16.3 Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]
Skin corrosion/irritation
Category 2
Serious eye damage/eye irritation
Category 2

16.4 Full text of H-Statements referred to under sections 2 and 3
Full text of H-Statements referred to under sections 2 and 3
H226 - Flammable liquid and vapor
H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H331 - Toxic if inhaled

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 and its amendment Regulation (EU) 2015/830

16.5 Training Advice
Normal use of this product shall imply use in accordance with the instructions on the packaging.

16.6 Further information
Salts listed in Section 3 without a REACh Registration number are exempt, based on Annex V.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

End of SDS