

According to Regulation (EC) No. 1907/2006 (REACH) and its amendment Regulation (EU) 2015/830

Issuing Date: 06-Apr-2018

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Version 1

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 |
| E-mail Address | pgsds.im@pg.com | Fax: 01932 896200 |

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 |
|-------------------|-------------------------------|

H319 - Causes serious eye 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

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

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

5.1 Extinguishing media

| | |
|--|---|
| Suitable extinguishing media | Dry chemical powder. Alcohol resistant foam. Carbon dioxide (CO ₂). |
| 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 |
|--|--------------------------|

| Chemical Name | CAS-No | Norway | Ireland | United Kingdom | European Union |
|---------------|--------|--------|---------|----------------|----------------|
|---------------|--------|--------|---------|----------------|----------------|

| | | | | | |
|-------------|---------|--|--|--|--|
| Formic Acid | 64-18-6 | TWA: 5 ppm TWA: 9 mg/m ³ STEL: 10 ppm STEL: 18 mg/m ³ | TWA: 5 ppm TWA: 9 mg/m ³ STEL: 15 ppm STEL: 27 mg/m ³ | STEL: 15 ppm STEL: 28.8 mg/m ³ TWA: 5 ppm TWA: 9.6 mg/m ³ | TWA: 5 ppm TWA: 9 mg/m ³ |
|-------------|---------|--|--|--|--|

Derived No Effect Level (DNEL)

Consumers

| Chemical Name | CAS-No | Consumer - inhalative, short-term - local | Consumer - dermal, short-term - local | Consumer - oral, short-term - systemic |
|---------------|---------|---|---------------------------------------|--|
| Formic Acid | 64-18-6 | 9.5 mg/m ³ | | |

| Chemical Name | CAS-No | Consumer - oral, long-term - systemic | Consumer - inhalative, long-term - local | Consumer - dermal, long-term - local |
|---------------|---------|---------------------------------------|--|--------------------------------------|
| Formic Acid | 64-18-6 | | 3 mg/m ³ | |

Predicted No Effect Concentration (PNEC)

| Chemical Name | CAS-No | Fresh Water | Marine water | Intermittent release |
|---------------|---------|-------------|--------------|----------------------|
| Formic Acid | 64-18-6 | 2 mg/L | 0.2 mg/L | 1 mg/L |
| Citric Acid | 77-92-9 | 0.44 mg/L | 0.044 mg/L | |

| Chemical Name | CAS-No | Freshwater sediment | Marine sediment | Sewage treatment plant |
|---------------|---------|------------------------|------------------------|------------------------|
| Formic Acid | 64-18-6 | 13.4 mg/kg | 1.34 mg/kg | 7.2 mg/L |
| Citric Acid | 77-92-9 | 34.6 mg/kg sediment dw | 3.46 mg/kg sediment dw | 1000 mg/L |

| Chemical Name | CAS-No | Soil | air | Oral |
|---------------|---------|--------------------|-----|------|
| Formic Acid | 64-18-6 | 1.5 mg/kg soil dw | | |
| Citric Acid | 77-92-9 | 33.1 mg/kg soil dw | | |

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

| Property | Value / Units | Test Method / Notes |
|----------------------|--------------------|--|
| Appearance | Liquid | |
| Physical State @20°C | Liquid | |
| Color | Coloured | |
| Odor | pleasant (perfume) | |
| Odor threshold | No data available | Perceived odor at typical use conditions |
| pH | 2.2 | |

| | | |
|---|-------------------|--|
| Melting Point / Freezing Point | No data available | No data available |
| Boiling point / boiling range | 100 - 106 °C | |
| Flash point | No data available | No Flash to Boiling (NFTB). |
| Relative Evaporation Rate (butylacetate=1) | No data available | |
| Flammability (solid, gas) | Not applicable | |
| Explosive limits | No data available | . |
| Vapor pressure | No data available | |
| Relative density | 1.0258 | |
| Solubility | Soluble in water | |
| Partition Coefficient (n-octanol/water) | No data available | |
| Autoignition temperature | No data available | Not available. This property is not relevant for the safety and classification of this product |
| Decomposition temperature | No data available | Not available. This property is not relevant for the safety and classification of this product |
| Viscosity | No data available | |
| Explosive properties | Not applicable | Not applicable. This product is not classified as explosive as it does not contain any substances which possesses explosive properties CLP (Art 14 (2)). |
| Oxidizing properties | Not applicable | Not applicable. This product is not classified as oxidizing as it does not contain any substances which possesses oxidizing properties CLP (Art 14 (2)) |

9.2 Other information

Other information No information available

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**

| | |
|--|---|
| Acute toxicity | Not Classified. Based on the available data, the classification criteria are not met. |
| Skin corrosion/irritation | Causes skin irritation. |
| Serious eye damage/eye irritation | Causes serious eye irritation. |
| Skin sensitization | Not Classified. Based on the available data, the classification criteria are not met. |
| Respiratory sensitization | Not Classified. Based on the available data, the classification criteria are not met. |
| Germ cell mutagenicity | Not Classified. Based on the available data, the classification criteria are not met. |
| Carcinogenicity | Not Classified. Based on the available data, the classification criteria are not met. |
| Reproductive toxicity | Not Classified. Based on the available data, the classification criteria are not met. |

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

| Chemical Name | CAS-No | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---------------|---------|----------------------------|----------------------------|-----------------|
| Citric Acid | 77-92-9 | 5400 mg/kg bw (//OECD 401) | > 2000 mg/kg bw (OECD 402) | - |

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

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

Chronic Toxicity

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

12.2 Persistence and degradability**Persistence and degradability**

| Chemical Name | CAS-No | Persistence and degradability | Ready Biodegradation Test (OECD 301) |
|---------------|---------|-------------------------------|--|
| Formic Acid | 64-18-6 | | 100 % (OECD 301 C; O ₂ consumption; 14 d; mixture of sewage, soil and natural water; aerobic) |
| Citric Acid | 77-92-9 | Biodegradable | 100% DOC; OECD 301 E; 19 d; > 60% (10 d) |

12.3 Bioaccumulative potential**Bioaccumulative potential**

| Chemical Name | CAS-No | Bioaccumulative potential | Octanol/water partition coefficient |
|---------------|---------|--|-------------------------------------|
| Formic Acid | 64-18-6 | Not expected to bioaccumulate due to the low log Kow (log Kow < 4) | -1.9 |
| Citric Acid | 77-92-9 | Not expected to bioaccumulate due to the low log Kow (log Kow < 4) | -1.55 |

12.4 Mobility in soil

Mobility

| Chemical Name | CAS-No | log Koc |
|---------------|---------|--|
| Formic Acid | 64-18-6 | Koc: < 17.8 (OECD 121; adsorption; HPLC estimation method) |

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 Not applicable

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 Regulation (EC) No. 648/2004 (Detergents regulation). Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]. Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006).

National regulatory information

No information available

15.2 Chemical Safety Assessment

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