SAFETY DATA SHEET

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

Issuing Date: 06-Apr-2018 **Revision Date:** 06-Apr-2018 **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 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

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 (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

Chemical Name	CAS-No	Norway	Ireland	United Kingdom	European Union

Formic Acid	64-18-6	TWA: 5 ppm TWA: 9 mg/m³ STEL: 10 ppm STEL: 18 mg/m³	TWA: 5 ppm TWA: 9 mg/m³ STEL: 15 ppm STEL: 27 mg/m³	STEL: 15 ppm STEL: 28.8 mg/m³ TWA: 5 ppm TWA: 9.6 mg/m³	TWA: 5 ppm TWA: 9 mg/m³

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/m³		

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/m³	

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; O2 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