

Lifeguard(*) Limescale Remover

Revision: 2012-10-29

Version 06

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

1.1 Product identifier

Trade name: Lifeguard(*) Limescale Remover

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

Identified uses:

For professional use only

AISE-P307 - Descaling agent. Manual process

AISE-P308 - Descaling agent. Spray and rinse manual process

Uses advised against Uses other than those identified are not recommended

1.3 Details of the supplier of the safety data sheet

Diversey Ltd

Contact details

Weston Favell Centre, Northampton NN3 8PD, United Kingdom

Tel: 01604 405311, Fax: 01604 406809

Regulatory Email: MSDSinfoUK@sealedair.com

1.4 Emergency telephone number

For medical or environmental emergency only:

call 0800 052 0185

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product has been classified and labelled in accordance with Directive 1999/45/EC and corresponding national legislation.

Indication of danger

Xi - Irritant

Risk phrases:

R36 - Irritating to eyes.

2.2 Label elements



Xi - Irritant

Risk phrases:

R36 - Irritating to eyes.

Safety phrases:

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Further indications on the label:

Rinse and dry hands after use. For prolonged contact, protection for the skin may be necessary.

2.3 Other hazards

No other hazards known. The product does not meet the criteria for PBT or vPvB in accordance with Regulation (EC) No 1907/2006, Annex XIII.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Lifeguard(*) Limescale Remover

Ingredient(s)	EC number	CAS number	REACH number	Classification	Classification (EC) 1272/2008	Notes	Weight percent
phosphoric acid	231-633-2	7664-38-2	01-2119485924-24	C; R34	Skin Corr. 1B (H314) Met. Corr. 1 (H290)		3-10
alkyl alcohol ethoxylate	Polymer*	69011-36-5	[4]	Xn; R22-41	Eye Dam. 1 (H318) Acute Tox. 4 (H302)		3-10

* Polymer.

For the full text of the R, H and EUH phrases mentioned in this Section, see Section 16.

Workplace exposure limit(s), if available, are listed in subsection 8.1.

[1] Exempted: ionic mixture. See Regulation (EC) No 1907/2006, Annex V, paragraph 3 and 4. This salt is potentially present, based on calculation, and included for classification and labelling purposes only. Each starting material of the ionic mixture is registered, as required.

[2] Exempted: included in Annex IV of Regulation (EC) No 1907/2006.

[3] Exempted: Annex V of Regulation (EC) No 1907/2006.

[4] Exempted: polymer. See Article 2(9) of Regulation (EC) No 1907/2006.

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation

Remove from source of exposure. Get medical attention.

Skin contact

Not required under normal use. If irritation develops get medical attention. Rinse with plenty of water.

Eye contact

Wash off immediately with plenty of water. Get medical attention.

Ingestion

Remove material from mouth. Immediately drink 1-2 glasses of water or milk. Get medical attention.

Self-protection of first aider:

Consider personal protective equipment as indicated in subsection 8.2.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation

Causes irritation.

Skin contact

Unlikely to be irritant in normal use.

Eye contact

Causes irritation.

Ingestion

Causes irritation.

Sensitisation

No known effects.

4.3 Indication of any immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Carbon dioxide. Dry powder. Water spray jet. Fight larger fires with water spray jet or alcohol-resistant foam.

5.2 Special hazards arising from the substance or mixture

No special hazards known.

5.3 Advice for firefighters

As in any fire, wear self contained breathing apparatus and suitable protective clothing including gloves and eye/face protection.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

No special measures required.

6.2 Environmental precautions

Do not allow to enter drainage system, surface or ground water. Dilute with plenty of water.

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust).

6.4 Reference to other sections

For personal protective equipment see subsection 8.2. For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Handle in accordance with good industrial hygiene and safety practice. Do not mix with other products unless advised by Diversey. For advice on general occupational hygiene see subsection 8.2. For environmental exposure controls see subsection 8.2. For incompatible materials see subsection 10.5.

Prevention of fire and explosion

No special precautions required.

Lifeguard(*) Limescale Remover

7.2 Conditions for safe storage, including any incompatibilities**Requirements for storage rooms / facilities:**

In accordance with local and national regulations.

Combined storage in storage rooms / facilities:

In accordance with local and national regulations. Store away from products containing chlorine-based bleaching agents or sulphites.

Basic storage conditions

Store in original container. Keep container tightly closed. For conditions to avoid see subsection 10.4.

7.3 Specific end use(s)

No specific advice for end use available.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Workplace exposure limits**

Air limit values, if available:

Ingredient(s)	UK - Long term value(s)	UK - Short term value(s)
phosphoric acid	1 mg/m ³	2 mg/m ³

Biological limit values, if available:

Recommended monitoring procedures, if available:

Additional exposure limits under the conditions of use, if available:

DNEL/DMEL and PNEC values**Human exposure**

DNEL oral exposure - Consumer (mg/kg bw)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
phosphoric acid	No data available	No data available	No data available	No data available
alkyl alcohol ethoxylate	No data available	No data available	No data available	No data available

DNEL dermal exposure - Worker

Ingredient(s)	Short term - Local effects	Short term - Systemic effects (mg/kg bw)	Long term - Local effects	Long term - Systemic effects (mg/kg bw)
phosphoric acid	No data available	No data available	No data available	No data available
alkyl alcohol ethoxylate	No data available	No data available	No data available	No data available

DNEL dermal exposure - Consumer

Ingredient(s)	Short term - Local effects	Short term - Systemic effects (mg/kg bw)	Long term - Local effects	Long term - Systemic effects (mg/kg bw)
phosphoric acid	No data available	No data available	No data available	No data available
alkyl alcohol ethoxylate	No data available	No data available	No data available	No data available

DNEL inhalatory exposure - Worker (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
phosphoric acid	No data available	No data available	2.92	No data available
alkyl alcohol ethoxylate	No data available	No data available	No data available	No data available

DNEL inhalatory exposure - Consumer (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
phosphoric acid	No data available	No data available	0.73	No data available
alkyl alcohol ethoxylate	No data available	No data available	No data available	No data available

Environmental exposure

Environmental exposure - PNEC

Ingredient(s)	Surface water, fresh (mg/l)	Surface water, marine (mg/l)	Intermittent (mg/l)	Sewage treatment plant (mg/l)
phosphoric acid	No data available	No data available	No data available	No data available
alkyl alcohol ethoxylate	No data available	No data available	No data available	No data available

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m ³)
phosphoric acid	No data available	No data available	No data available	No data available
alkyl alcohol ethoxylate	No data available	No data available	No data available	No data available

Lifeguard(*) Limescale Remover

8.2 Exposure controls

General health and safety measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Wash hands before breaks and at the end of workday. Avoid contact with eyes.

The following information applies for the uses indicated in subsection 1.2.

If available, please refer to the product information sheet for application and handling instructions.

Normal use conditions are assumed for this section.

Recommended safety measures for handling the undiluted product:

Appropriate engineering controls: No special requirements under normal use conditions.
Appropriate organisational controls: Avoid direct contact and/or splashes where possible. Train personnel.

Personal protective equipment

Eye / face protection: Safety glasses are not normally required. However, their use is recommended in those cases where splashes may occur when handling the product.
Hand protection: Rinse and dry hands after use. For prolonged contact protection for the skin may be necessary.
Body protection: No special requirements under normal use conditions.
Respiratory protection: No special requirements under normal use conditions.

Environmental exposure controls: Should not reach sewage water or drainage ditch undiluted or unneutralised.

Recommended safety measures for handling the diluted product:

Recommended maximum concentration (%): 10

Appropriate engineering controls: No special requirements under normal use conditions.
Appropriate organisational controls: No special requirements under normal use conditions.

Personal protective equipment .

Eye / face protection: No special requirements under normal use conditions.
Hand protection: Rinse and dry hands after use. For prolonged contact protection for the skin may be necessary.
Body protection: No special requirements under normal use conditions.
Respiratory protection: No special requirements under normal use conditions.

Environmental exposure controls: No special requirements under normal use conditions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Information in this section refers to the product, unless it is specifically stated that substance data is listed

Method / remark

Physical State: Liquid

Colour: Clear Purple

Odour: Slightly perfumed

Odour threshold: Not applicable.

pH: < 2 (neat)

Melting point/freezing point (°C): Not determined

Initial boiling point and boiling range (°C): Not determined

Flash point (°C): Not applicable.

Sustained combustion: Not determined

Evaporation rate: Not determined

Flammability (solid, gas): Not determined

Upper/lower flammability limit (%): Not determined

Vapour pressure: Not determined

Vapour density: Not determined

Relative density: 1.06 g/cm³ (20°C)

Solubility in / Miscibility with Water: Fully miscible

Autoignition temperature: Not determined

Lifeguard(*) Limescale Remover

Decomposition temperature: Not determined**Viscosity:** Not determined**Explosive properties** Not explosive.**Oxidising properties:** Not oxidising.**9.2 Other information****Surface tension (N/m):** Not determined**Corrosion to metals****(according to IMDG/ADR regulation):** Not determined**SECTION 10: Stability and reactivity****10.1 Reactivity**

No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability

Stable under normal storage and use conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions known under normal storage and use conditions.

10.4 Conditions to avoid

None known under normal storage and use conditions.

10.5 Incompatible materials

Keep away from products containing chlorine-based bleaching agents or sulphites. Reacts with alkali.

10.6 Hazardous decomposition products

None known under normal storage and use conditions.

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Mixtures**

No test data is available on the mixture

Substance data, where relevant and available, are listed below.

Acute toxicity

Acute oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
phosphoric acid	LD ₅₀	2600	Rat	OECD 423 (EU B.1 tris)	
alkyl alcohol ethoxylate	LD ₅₀	500 - 2000	Rat	OECD 423 (EU B.1 tris)	

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
phosphoric acid	LD ₅₀	2740	Rabbit	Method not given	
alkyl alcohol ethoxylate		No data available			

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
phosphoric acid	LC ₅₀	850	Rat	Method not given	2
alkyl alcohol ethoxylate		No data available			

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
phosphoric acid	Corrosive	Rabbit	OECD 404 (EU B.4)	
alkyl alcohol ethoxylate	Not irritant	Rabbit	OECD 404 (EU B.4)	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
phosphoric acid	Severe damage	Rabbit		

Lifeguard(*) Limescale Remover

alkyl alcohol ethoxylate	Severe damage	Rabbit	Method not given	
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Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
phosphoric acid	No data available			
alkyl alcohol ethoxylate	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
phosphoric acid	Not sensitising	Human	Human experience	
alkyl alcohol ethoxylate	No data available			

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
phosphoric acid	No data available			
alkyl alcohol ethoxylate	No data available			

Repeated dose toxicity

Sub-acute or sub-chronic oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
phosphoric acid		No data available				
alkyl alcohol ethoxylate		No data available				

Sub-chronic dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
phosphoric acid		No data available				
alkyl alcohol ethoxylate		No data available				

Sub-chronic inhalation toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
phosphoric acid		No data available				
alkyl alcohol ethoxylate		No data available				

Chronic toxicity

Ingredient(s)	Exposure route	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time	Specific effects and organs affected	Remark
phosphoric acid			No data available					
alkyl alcohol ethoxylate			No data available					

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Mixture data:

Based on available data, the classification criteria are not met.

Substance data, where relevant and available

Carcinogenicity

Ingredient(s)	Effect
phosphoric acid	No data available
alkyl alcohol ethoxylate	No data available

Mutagenicity

Ingredient(s)	Result (in-vitro)	Method (in-vitro)	Result (in-vivo)	Method (in-vivo)
phosphoric acid	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13) OECD 473 OECD 476 (Mouse lymphoma)	No data available	
alkyl alcohol ethoxylate	No data available		No data available	

Toxicity for reproduction

Lifeguard(*) Limescale Remover

Ingredient(s)	Endpoint	Specific effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks and other effects reported
phosphoric acid	NOAEL	Developmental toxicity	410	Rat	OECD 422, oral	10 day(s)	No evidence for reproductive toxicity No evidence for developmental toxicity
alkyl alcohol ethoxylate			No data available				

Potential adverse health effects and symptoms

Effects and symptoms related to the product, if any, are listed in subsection 4.2.

SECTION 12: Ecological information**12.1 Toxicity**

Mixtures

No test data is available on the mixture.

Substance data, where relevant and available, are listed below

Aquatic short-term toxicity

Aquatic short-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
phosphoric acid	LC ₅₀	138	Gambusia affinis	Method not given	96
alkyl alcohol ethoxylate	LC ₅₀	1 - 10	Leuciscus idus	Method not given	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
phosphoric acid	EC ₅₀	> 100	Daphnia magna Straus	OECD 202	48
alkyl alcohol ethoxylate	EC ₅₀	1 - 10	Not specified	Method not given	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
phosphoric acid	EC ₅₀	> 100	Desmodesmus subspicatus	OECD 201	72
alkyl alcohol ethoxylate	EC ₅₀	1 - 10	Not specified	Method not given	72

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
phosphoric acid		No data available			
alkyl alcohol ethoxylate		No data available			

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
phosphoric acid	EC ₅₀	270	Activated sludge	Method not given	
alkyl alcohol ethoxylate	EC ₁₀	> 10000	Activated sludge	DIN 38412 / Part 8	17 hour(s)

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
phosphoric acid		No data available				
alkyl alcohol ethoxylate		No data available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
phosphoric acid		No data available				
alkyl alcohol ethoxylate		No data available				

Aquatic toxicity to other aquatic benthic organisms, including sediment-dwelling organisms, if available:

Terrestrial toxicity

Lifeguard(*) Limescale Remover

Terrestrial toxicity - soil invertebrates, including earthworms, if available:

Terrestrial toxicity - plants, if available:

Terrestrial toxicity - birds, if available:

Terrestrial toxicity - beneficial insects, if available:

Terrestrial toxicity - soil bacteria, if available:

12.2 Persistence and degradability

Abiotic degradation

Abiotic degradation - photodegradation in air, if available:

Abiotic degradation - hydrolysis, if available:

Abiotic degradation - other processes, if available:

Biodegradation

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT ₅₀	Method	Evaluation
phosphoric acid					No data available
alkyl alcohol ethoxylate		CO ₂ production	> 60 % in 28 day(s)	OECD 301B	Readily biodegradable

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

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.

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log K_{ow})

Ingredient(s)	Value	Method	Evaluation	Remark
phosphoric acid	No data available			
alkyl alcohol ethoxylate	No data available			

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
phosphoric acid	No data available				
alkyl alcohol ethoxylate	No data available				

12.4 Mobility in soil

Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption coefficient Log K _{oc}	Desorption coefficient Log K _{oc} (des)	Method	Soil/sediment type	Evaluation
phosphoric acid	No data available				
alkyl alcohol ethoxylate	No data available				

12.5 Results of PBT and vPvB assessment

Substances that fulfill the criteria for PBT/vPvB, if any, are listed in section 3.

12.6 Other adverse effects

No other adverse effects known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste from residues / unused products Dispose of in compliance with all Federal, state, provincial, and local laws and regulations.
European Waste Catalogue: 20 01 29* - detergents containing dangerous substances.

Empty packaging

Recommendation:

Suitable cleaning agents

Dispose of observing national or local regulations.
 Water, if necessary with cleaning agent.

SECTION 14: Transport information

Lifeguard(*) Limescale Remover

**ADR, RID, ADN, IMO/IMDG, ICAO/IATA****14.1 UN number:** 1805**14.2 UN proper shipping name:**

Phosphoric acid, solution

14.3 Transport hazard class(es):

Class:8

Label(s):8

14.4 Packing group: III**14.5 Environmental hazards:**

Environmentally hazardous:No

Marine pollutant No

14.6 Special precautions for user: None known.**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** The product is not transported in bulk tankers.**Other relevant information:****ADR**

Classification Code C1

Tunnel restriction code E

Hazard identification number: 80

IMO/IMDG

EmS F-A, S-B

The product has been classified, labelled and packaged in accordance with the requirements of ADR and the provisions of the IMDG Code. Transport regulations include special provisions for certain classes of dangerous goods packed in limited quantities.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Ingredients according to EC Detergents Regulation 648/2004**

non-ionic surfactants < 5%
 perfumes, Hexyl Cinnamal, Butylphenyl Methylpropional

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out on the mixture

SECTION 16: Other information

The information in this document is based on our best present knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally binding contract

() This brand is used under authority from SC Johnson & Son Inc. Racine, Wisconsin, USA*

MSDS code: MSDS4553**Version** 06**Revision:** 2012-10-29**Reason for revision:**

Overall design adjusted in accordance with Regulation (EC) No 1907/2006, Annex II

Full text of the R, H and EUH phrases mentioned in section 3

- R34 - Causes burns.
- R41 - Risk of serious damage to eyes.
- R22 - Harmful if swallowed.
- R36 - Irritating to eyes.
- H302 - Harmful if swallowed.
- H314 - Causes severe skin burns and eye damage.
- H318 - Causes serious eye damage.

Abbreviations and acronyms:

- AISE - The international Association for Soaps, Detergents and Maintenance Products
- DNEL - Derived No Effect Limit
- EUH - CLP Specific hazard statement
- PBT - Persistent, Bioaccumulative and Toxic
- PNEC - Predicted No Effect Concentration
- REACH number - REACH registration number, without supplier specific part
- vPvB - very Persistent and very Bioaccumulative

End of Safety Data Sheet

