

SAFETY DATA SHEET

ScaleZap



Date of issue: 26 June 2024
Version: 1.0

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830
AS AMENDED BY UK REACH REGULATIONS SI 2019/758

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

1.1 Product identifier		
Product name	ScaleZap	
Product type	Mixture	
1.2 Relevant identified uses of the substance or mixture and uses advised against		
Identified Use(s)	Intended for the removal of organis and inorganic scale from toilets only.	
Uses advised against	Anything other than the above.	
1.3 Details of the supplier of the safety data sheet		
Company Identification	Advanced Bacterial Sciences Ltd, Unit 3 Northgate Business Park, White Lund Industrial Estate, Morecambe, LA3 3BJ, United Kingdom	
Telephone	+44 (0)7538 065618	
E-mail (competent person)	sales@abs.eco	
1.4 Emergency telephone number		
Emergency Phone No.	01524 481513	Only available during office hours. Monday to Friday 09.00 - 17.00, GMT
Languages spoken	English	

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture		
2.1.1 The retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain	Ox. Sol. 3; H272 Eye Irrit. 2; H319 STOT SE 3; H335 - Respiratory tract (Inhalation)	
2.2 Label elements		
According to the retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain		
Product name	ScaleZap	
Contains:	Citric acid	
Hazard Pictogram(s)	 	
Signal Word(s)	WARNING	
Hazard Statement(s)	H272: May intensify fire; oxidiser. H319: Causes serious eye irritation. H335: May cause respiratory irritation.	
Precautionary Statement(s)	P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P220: Keep away from clothing and other combustible materials.	

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P280: Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
P312: Call a POISON CENTER/doctor if you feel unwell.
P337+P313: If eye irritation persists: Get medical advice/attention.

Supplemental information

EUH208: Contains: Nerol. May produce an allergic reaction.

2.3 Other hazards

None known

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
Not applicable

3.2 Mixtures

Classification: The retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain

Chemical identity of the substance	%W/W	CAS No.	EC No.	UK-REACH Registration No.	Hazard classification
Citric acid	60 - 80	77-92-9	201-069-1	Not yet assigned in the supply chain	Eye Irrit. 2; H319 STOT SE 3; H335 - Respiratory tract (Inhalation)
Disodium carbonate, compound with hydrogen peroxide (2:3)	10 - 30	15630-89-4	239-707-6	Not yet assigned in the supply chain	Ox. Sol. 3; H272 Acute Tox. 4; H302 Eye Dam. 1; H318
Disodium laureth sulfosuccinate	1 - 5	39354-45-5	-	Not yet assigned in the supply chain	Eye Irrit. 2; H319
Nerol	0.1 - 1	106-25-2	203-378-7	Not yet assigned in the supply chain	Skin Irrit. 2; H315 Skin Sens. 1B; H317 Eye Dam. 1; H318

For full text of H phrases see section 16.

SECTION 4: FIRST AID MEASURES



4.1 Description of first aid measures

Self-protection of the first aider

Inhalation

Skin contact

Eye contact

Ingestion

No action should be taken involving personal risk. Wear appropriate personal protective equipment. Avoid breathing dust. Avoid contact with skin and eyes.
IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, obtain medical attention.
IF ON SKIN: Immediately flush skin with large amounts of water. If symptoms occur obtain medical attention.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation develops and persists, get medical attention.
IF SWALLOWED: Give plenty of water to drink. Do NOT induce vomiting. Seek medical treatment.

4.2 Most important symptoms and effects, both acute and delayed

Causes serious eye irritation. May cause respiratory irritation.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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SECTION 5: FIREFIGHTING MEASURES

- | | | |
|------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5.1 Extinguishing media
Suitable extinguishing media

Unsuitable extinguishing media | 5.2 Special hazards arising from the substance or mixture | Not flammable. In case of fire, use water spray, foam, dry powder or CO2 for extinction.

Do not use water jet. Direct water jet may spread the fire. |
| 5.3 Advice for firefighters | | May intensify fire; oxidiser. Contact with combustible material may cause fire. May give off noxious and toxic fumes in a fire. Combustion products: Carbon monoxide, Carbon dioxide.

Fight fire with normal precautions from a reasonable distance. Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Keep containers cool by spraying with water if exposed to fire. Avoid run off to waterways and sewers. |

SECTION 6: ACCIDENTAL RELEASE MEASURES

- | | |
|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6.1 Personal precautions, protective equipment and emergency procedures | No action should be taken involving personal risk. Wear appropriate personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Avoid breathing dust. Avoid contact with skin and eyes. Avoid contact with combustible material. Shut off all ignition sources. |
| 6.2 Environmental precautions | Avoid release to the environment. |
| 6.3 Methods and material for containment and cleaning up | Sweep up spilled substance. Use vacuum equipment for collecting spilt materials, where practicable. Use non-sparking tools. Collect in closed and suitable containers for disposal. Recover the product where possible. Wash the spillage area with water. |
| 6.4 Reference to other sections | See sections 8 and 13 |

SECTION 7: HANDLING AND STORAGE

- | | |
|--------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7.1 Precautions for safe handling | When using do not eat or drink. Wear appropriate personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Avoid breathing dust. Avoid contact with skin and eyes. Wash hands and exposed skin thoroughly after handling. Remove contaminated clothing and wash it before reuse. Use non-sparking tools. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid contact with combustible material. |
| 7.2 Conditions for safe storage, including any incompatibilities
Storage temperature
Incompatible materials | Keep container closed. Keep in a cool, dry place, away from moisture, heat and ignition sources.
Stable at ambient temperatures.
Keep away from: Combustible materials, strong oxidising agents and strong bases. |
| 7.3 Specific end use(s) | See section: 1.2 |

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION




- | | |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8.1 Control parameters | |
| 8.1.1 Occupational exposure limits | The UK HSE (EH40) recommends the following limits for dusts: 10 mg/m3 (8hr TWA) total inhalable dust; 4 mg/m3 (8hr TWA) total respirable dust. |
| 8.1.2 Biological Limit Value | None assigned |
| 8.1.3 PNECs and DNELs | None assigned |
| 8.2 Exposure controls | |
| 8.2.1 Appropriate engineering controls | Ensure adequate ventilation. Store in a cool/low-temperature, well-ventilated (dry) place away from heat and ignition sources. A washing facility/water for eye and skin cleaning purposes should be present./ Eyewash bottles should be available. |

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8.2.2 Individual protection measures, such as personal protective equipment	Keep good industrial hygiene. Wear appropriate personal protective equipment. Avoid breathing dust. Avoid contact with skin and eyes. Do not eat, drink or smoke at the work place.
Eye / face protection 	Wear eye protection with side protection (EN166).
Skin protection 	Hand protection: Wear impervious gloves (EN374). Breakthrough time of the glove material: refer to the information provided by the gloves' producer. Body protection: Body protection must be chosen depending on activity and possible exposure e.g. head protection, apron, protective boots.
Respiratory protection 	In case of inadequate ventilation wear respiratory protection. Recommended: Half-face mask with filter type P2 (EN 143)
Thermal hazards	Not applicable
8.2.3 Environmental exposure controls	Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties	
Appearance	White to off-white powder
Odour	Fresh
Odour threshold	No data available
pH	3.5-7.0 after reconstitution
Melting point/freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	>100 °C
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Solubility(ies)	No data available
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	>100 °C
Decomposition temperature	>100 °C
Viscosity	0-5cP after reconstitution as instructed
Explosive properties	No data available
Oxidising properties	No data available
9.2 Other information	None known

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	Stable under normal conditions
10.2 Chemical stability	Stable under normal conditions
10.3 Possibility of hazardous reactions	Hazardous polymerisation will not occur.

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10.4	Conditions to avoid	Avoid dust formation. Avoid prolonged storage at elevated temperature.
10.5	Incompatible materials	Keep away from: Combustible materials, strong oxidising agents and strong bases.
10.6	Hazardous decomposition products	May give off noxious and toxic fumes in a fire. Combustion products: Carbon monoxide, Carbon dioxide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1	Information on toxicological effects	
	Acute toxicity - Ingestion	Mixture: Based upon the available data, the classification criteria are not met. Calculated acute toxicity estimate (ATE) >2,000 mg/kg.
	Acute toxicity - inhalation	Mixture: Based upon the available data, the classification criteria are not met. Calculated acute toxicity estimate (ATE) > 5 mg/L (Dusts)
	Acute toxicity - Skin contact	Mixture: Based upon the available data, the classification criteria are not met. Calculated acute toxicity estimate (ATE) >2,000 mg/kg.
	Skin corrosion/irritation	Mixture: Based upon the available data, the classification criteria are not met.
	Serious eye damage/irritation	Mixture Eye Irrit. 2; H319: Causes serious eye irritation.
	Citric acid	Eye Irrit. 2; H319: Causes serious eye irritation.
	Disodium carbonate, compound with hydrogen peroxide (2:3)	Irritating to eyes. (rabbit) (OECD 405) (Unnamed publication, 1984) Eye Dam. 1; H318: Causes serious eye damage.
	Disodium laureth sulfosuccinate	Adverse effects observed - Severe irritant, Conjunctival redness. Corneal opacity. (rabbit) (OECD 405) (Unnamed publication, 1995) Eye Irrit. 2; H319: Causes serious eye irritation. No data available
	Respiratory or skin sensitisation	Mixture: EUH208: Contains: Nerol. May produce an allergic reaction.
	Nerol	Sensitisation – Positive (Mouse) (OECD 429) (Unnamed publication, 2013)
	Germ cell mutagenicity	Mixture: Based upon the available data, the classification criteria are not met.
	Carcinogenicity	Mixture: Based upon the available data, the classification criteria are not met.
	Reproductive toxicity	Mixture: Based upon the available data, the classification criteria are not met.
	STOT - single exposure	Mixture: STOT SE 3; H335: May cause respiratory irritation. - Respiratory tract (Inhalation)
	Citric acid	STOT SE 3; H335: May cause respiratory irritation. - Respiratory tract (Inhalation)
		GB Mandatory classification and labelling list No data available.
	STOT - repeated exposure	Mixture: Based upon the available data, the classification criteria are not met.
	Aspiration hazard	Mixture: Based upon the available data, the classification criteria are not met.
11.2	Other information	None

SECTION 12: ECOLOGICAL INFORMATION

12.1	Toxicity	Mixture Based upon the available data, the classification criteria are not met. estimated LC50 (Mixture): > 100 mg/l.
12.2	Persistence and degradability	No data for the mixture as a whole.
	Citric acid	Readily biodegradable.
	Disodium carbonate, compound with hydrogen peroxide (2:3)	% Biodegradation: 90 (30 days) (OECD 301D) (Gerike & Fischer, 1979) Not applicable for inorganic substances.
	Disodium laureth sulfosuccinate	No data available
	Nerol	Readily biodegradable. % Biodegradation: 90 (28 days) (OECD 301D) (Unnamed publication, 2011)
12.3	Bioaccumulative potential	No data for the mixture as a whole.
	Citric acid	The substance has low potential for bioaccumulation. Log KOW ≤ 3
	Disodium carbonate, compound with hydrogen peroxide (2:3)	Not applicable for inorganic substances.
	Disodium laureth sulfosuccinate	No data available

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12.4	Mobility in soil	Nerol	The substance has low potential for bioaccumulation. BCF = 30.76 L/kg ((Q)SAR) (Unnamed publication, 2013) No data for the mixture as a whole.
		Citric acid	The substance is predicted to have high mobility in soil. Very soluble in water. Water solubility (g/L): 592 (O'Neil, 2001)
		Disodium carbonate, compound with hydrogen peroxide (2:3)	No data available
		Disodium laureth sulfosuccinate	No data available
12.5	Results of PBT and vPvB assessment	Nerol	The substance is predicted to have high mobility in soil. Koc = 94.15 L/kg ((Q)SAR) (Unnamed publication, 2013)
12.6	Other adverse effects		Not classified as PBT or vPvB. None Known

SECTION 13: DISPOSAL CONSIDERATIONS

13.1	Waste treatment methods	Disposal should be in accordance with local, state or national legislation. Handle contaminated packages in the same way as the substance itself. Non-contaminated packages may be recycled.
13.2	Additional information Waste classification according to Directive 2008/98/EC (Waste Framework Directive)	HP2: Oxidising HP4: Irritant — skin irritation and eye damage HP5: Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

SECTION 14: TRANSPORT INFORMATION

	ADR/RID	IMDG	IATA/CAO
14.1	UN number	UN1479	UN1479
14.2	UN proper shipping name	OXIDISING SOLID, N.O.S. (Disodium carbonate, compound with hydrogen peroxide (2:3))	OXIDISING SOLID, N.O.S. (Disodium carbonate, compound with hydrogen peroxide (2:3))
14.3	Transport hazard class(es)	5.1	5.1
14.4	Packing group	III	III
14.5	Environmental hazards	Not classified	Not classified
14.6	Special precautions for user	See Section: 2	
14.7	Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable	

SECTION 15: REGULATORY INFORMATION

15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture	
15.1.1	EU regulations Authorisations and/or restrictions on use BPR - Union List RoHS – EEE Substance Inventory To follow:	Not restricted Citric acid: PT02 Citric acid: Listed (Presence in EEE: Plausible). Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work
15.1.2	National regulations United Kingdom Authorisations and/or restrictions on use GB BPR - GB List of Active Substances GB CLP - Mandatory classification and labelling list PIC (Prior Informed Consent) Regulation Poisons Act	Not restricted Citric acid: Listed Citric acid: Listed No components of the mixture are listed No components of the mixture are listed

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UK REACH – Grandfathered registration notified substances list

Citric acid: Listed
Disodium carbonate, compound with hydrogen peroxide (2:3): Listed
Decanal: Listed

Germany

Wassergefährdungsklasse (Germany)

Water hazard class: non-hazardous to water (nwg) (Self classification)

15.2 Chemical Safety Assessment

A chemical safety assessment is not required under REACH.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: Not applicable V1.0

References:

Existing ECHA registration(s) for Citric acid (CAS No. 77-92-9), Disodium carbonate, compound with hydrogen peroxide (2:3) (CAS No. 15630-89-4), Nerol (CAS No. 106-25-2).

Literature References:

- Gerike P, Fischer WK. A correlation study of biodegradability determinations with various chemicals in various tests. *Ecotoxicol Environ Saf.* 1979 Jun;3(2):159-73. doi: 10.1016/0147-6513(79)90009-5. PMID: 120246.
- O'Neil, M. J. (2001) *The Merck index—An encyclopedia of chemicals, drugs, and biologicals.* 13th Edition, Merck and Co., Whitehouse Station.

Classification: This Safety Data Sheet was prepared in accordance with EC Regulation (EC) 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830. Compiled in accordance with REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758

Classification of the substance or mixture. The retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain	Classification procedure
Ox. Sol. 3, H272	Expert judgement and weight of evidence.
Eye Irrit. 2; H319	Threshold Calculation
STOT SE 3; H335 - Respiratory tract (Inhalation)	Threshold Calculation
EUH208	Threshold Calculation

Legend

ADR	ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS	CAS: Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DNEL	Derived no effect level
EC	EC: European Community
ECHA	European Chemicals Agency
EU	European Union
IATA	IATA: International Air Transport Association
ICAO	ICAO: International Civil Aviation Organization
IMDG	IMDG: International Maritime Dangerous Goods
LC50	Lethal concentration at which 50% of the population is killed
LD50	Lethal dose at which 50% of the population is killed
LTEL	Long term exposure limit
OECD	Organisation for Economic Cooperation and Development
PBT	PBT: Persistent, Bioaccumulative and Toxic
PNEC	Predicted No Effect Concentration
(Q)SAR	Quantitative Structure-Activity Relationship
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	RID: Regulations concerning the international railway transport of dangerous goods
STEL	Short term exposure limit
TWA	Time Weighted Average
UN	United Nations
vPvB	vPvB: very Persistent and very Bioaccumulative

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Hazard classification / Classification code:

Ox. Sol. 3; Oxidising solid, Category 3
Acute Tox. 4; Acute Toxicity, Category 4
Skin Irrit. 2; Skin corrosion/irritation, Category 2
Skin Sens. 1B; Skin Sensitisation, Category 1B
Eye Dam. 1; Eye damage, category 1
Eye Irrit. 2; eye Irritation, Category 2
STOT SE 3; Specific target organ toxicity — single exposure, Category 3

Hazard Statement(s)

EUH208: Contains May produce an allergic reaction.
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.
H335: May cause respiratory irritation.

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

Disclaimers

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Annex to the extended Safety Data Sheet (eSDS)

Exposure scenarios for substances in this preparation are not available.