

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

1.1. Product identifier

Product form : Mixture
 Name : SCALE BREAKER
 Product code : DS43
 Product group : Trade product

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

1.2.1. Relevant identified uses

Main use category : Professional use
 Industrial/Professional use spec : For professional use only
 Use of the substance/mixture : Viscous Multi-purpose bactericidal acidic cleaner and descaler. Safe on ceramic, porcelain and s/s toilet bowls and urinals
 Use of the substance/mixture : Washing and cleaning products (including solvent based products)

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

BIO PRODUCTION LTD,
 72 Victoria Road,
 Victoria Industrial Estate,
 Burgess Hill,
 West Sussex,
 RH15 9LH.

Tel: 0044 (0) 1444 244 000

Email: sales@bio-productions.com web: www.bio-productions.com

1.4. Emergency telephone number

Emergency number : 0044 (0) 1444 244 000

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, Category 2 H315
 Serious eye damage/eye irritation, Category 2 H319
 Hazardous to the aquatic environment — Chronic Hazard, Category 3 H412

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Causes skin irritation. Causes serious eye irritation. Harmful to aquatic life with long lasting effects.

2.2. Label elements

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Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) :

Warning

Hazard statements (CLP) :

H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP) :

P264 - Wash hands, forearms and face thoroughly after handling.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P302+P352 - IF ON SKIN: Wash with plenty of water.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P501 - Dispose of contents and container to an approved waste disposal plant.

Labelling according to Directive 67/548/EEC or 1999/45/EC

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
sulphamidic acid; sulphamic acid; sulfamic acid	(CAS-No.) 5329-14-6 (EC-No.) 226-218-8 (EC Index-No.) 016-026-00-0 (REACH-no) 01-2119488633-28	5 – 10	Eye Irrit. 2, H319 Skin Irrit. 2, H315 Aquatic Chronic 3, H412
CITRIC ACID	(CAS-No.) 5949-29-1 (EC-No.) 201-069-1 (REACH-no) 01-2119457026-42	1 – 3	Eye Irrit. 2, H319
C12-16 alkylbenzyltrimethylammonium chloride	(CAS-No.) 68424-85-1 (EC-No.) 270-325-2	1 – 3	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410
non-ionic surfactants	(CAS-No.) 68439-50-9	1 – 3	Eye Dam. 1, H318 Aquatic Chronic 3, H412
3-butoxypropan-2-ol; propylene glycol monobutyl ether substance with a Community workplace exposure limit	(CAS-No.) 5131-66-8 (EC-No.) 225-878-4 (EC Index-No.) 603-052-00-8 (REACH-no) 01-2119475527-28	0.1 – 1	Eye Irrit. 2, H319

Specific concentration limits:

Name	Product identifier	Specific concentration limits
C12-16 alkylbenzyltrimethylammonium chloride	(CAS-No.) 68424-85-1 (EC-No.) 270-325-2	(0.25 ≤C < 2.5) Aquatic Chronic 3, H412

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.

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- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/effects after skin contact : Irritation.
- Symptoms/effects after eye contact : Eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

- Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Take up liquid spill into absorbent material.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment.
- Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

Protective gloves

Eye protection:

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Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment



Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Green.
Odour	: Floral.
Odour threshold	: No data available
pH	: 1 – 2
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: < 0 °C
Boiling point	: > 100 °C
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: ≈ 1.04 g/ml
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

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10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

sulphamidic acid; sulphamic acid; sulfamic acid (5329-14-6)	
LD50 oral	> 2000 mg/kg bodyweight

CITRIC ACID (5949-29-1)	
LD50 oral rat	11700 mg/kg
LD50 dermal rat	> 2000 mg/kg

3-butoxypropan-2-ol; propylene glycol monobutyl ether (5131-66-8)	
LD50 oral rat	3300 mg/kg
LD50 dermal rat	> 2000
LC50 Inhalation - Rat (Vapours)	> 3.5 mg/l/4h

non-ionic surfactants (68439-50-9)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

Skin corrosion/irritation : Causes skin irritation.

pH: 1 – 2

Serious eye damage/irritation : Causes serious eye irritation.

pH: 1 – 2

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.

sulphamidic acid; sulphamic acid; sulfamic acid (5329-14-6)	
LC50 - Fish [1]	70.3 mg/l

CITRIC ACID (5949-29-1)	
LC50 - Fish [1]	440 – 706 mg/l
EC50 - Crustacea [1]	1535 mg/l

C12-16 alkylbenzyltrimethylammonium chloride (68424-85-1)	
LC50 - Fish [1]	0.85 mg/l
EC50 - Crustacea [1]	0.02 mg/l
NOEC chronic fish	< 0.1 mg/l

3-butoxypropan-2-ol; propylene glycol monobutyl ether (5131-66-8)	
LC50 - Fish [1]	> 560 mg/l
EC50 - Crustacea [1]	> 1000 mg/l

12.2. Persistence and degradability

SCALE BREAKER - DS43	
Persistence and degradability	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.

C12-16 alkylbenzyltrimethylammonium chloride (68424-85-1)	
Persistence and degradability	Biodegradable.

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12.3. Bioaccumulative potential

sulphamidic acid; sulphamic acid; sulfamic acid (5329-14-6)

Partition coefficient n-octanol/water (Log Pow)	0.1
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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

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Results of PBT assessment	The product does not meet the PBT and vPvB classification criteria
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12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number

UN-No. (ADR)	: 2967
UN-No. (IMDG)	: 2967
UN-No. (IATA)	: 2967
UN-No. (ADN)	: 2967
UN-No. (RID)	: 2967

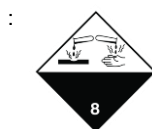
14.2. UN proper shipping name

Proper Shipping Name (ADR)	: SULPHAMIC ACID
Proper Shipping Name (IMDG)	: SULPHAMIC ACID
Proper Shipping Name (IATA)	: Sulphamic acid
Proper Shipping Name (ADN)	: SULPHAMIC ACID
Proper Shipping Name (RID)	: SULPHAMIC ACID
Transport document description (ADR)	: UN 2967 SULPHAMIC ACID, 8, III, (E)
Transport document description (IMDG)	: UN 2967 SULPHAMIC ACID, 8, III
Transport document description (IATA)	: UN 2967 Sulphamic acid, 8, III
Transport document description (ADN)	: UN 2967 SULPHAMIC ACID, 8, III
Transport document description (RID)	: UN 2967 SULPHAMIC ACID, 8, III

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	: 8
Danger labels (ADR)	: 8



IMDG

Transport hazard class(es) (IMDG)	: 8
Danger labels (IMDG)	: 8



IATA

Transport hazard class(es) (IATA)	: 8
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Danger labels (IATA) : 8

:



ADN

Transport hazard class(es) (ADN) : 8

Danger labels (ADN) : 8

:



RID

Transport hazard class(es) (RID) : 8

Danger labels (RID) : 8

:



14.4. Packing group

Packing group (ADR) : III

Packing group (IMDG) : III

Packing group (IATA) : III

Packing group (ADN) : III

Packing group (RID) : III

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : C2

Limited quantities (ADR) : 5kg

Excepted quantities (ADR) : E1

Packing instructions (ADR) : P002, IBC08, LP02, R001

Special packing provisions (ADR) : B3

Mixed packing provisions (ADR) : MP10

Portable tank and bulk container instructions (ADR) : T1

Portable tank and bulk container special provisions (ADR) : TP33

Tank code (ADR) : SGAV

Vehicle for tank carriage : AT

Transport category (ADR) : 3

Special provisions for carriage - Bulk (ADR) : VC1, VC2, AP7

Hazard identification number (Kemler No.) : 80

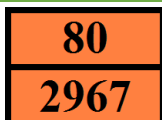
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Orange plates

:



Tunnel restriction code (ADR)

: E

EAC code

: 2X

- Transport by sea

Limited quantities (IMDG)

: 5 kg

Excepted quantities (IMDG)

: E1

Packing instructions (IMDG)

: P002, LP02

IBC packing instructions (IMDG)

: IBC08

IBC special provisions (IMDG)

: B3

Tank instructions (IMDG)

: T1

Tank special provisions (IMDG)

: TP33

EmS-No. (Fire)

: F-A

EmS-No. (Spillage)

: S-B

Stowage category (IMDG)

: A

Segregation (IMDG)

: SGG1, SG36, SG49

Properties and observations (IMDG)

: White crystalline powder. Soluble in water. Decomposes when heated, evolving toxic fumes. Causes burns to skin, eyes and mucous membranes.

- Air transport

PCA Excepted quantities (IATA)

: E1

PCA Limited quantities (IATA)

: Y845

PCA limited quantity max net quantity (IATA)

: 5kg

PCA packing instructions (IATA)

: 860

PCA max net quantity (IATA)

: 25kg

CAO packing instructions (IATA)

: 864

CAO max net quantity (IATA)

: 100kg

Special provisions (IATA)

: A803

ERG code (IATA)

: 8L

- Inland waterway transport

Classification code (ADN)

: C2

Limited quantities (ADN)

: 5 kg

Excepted quantities (ADN)

: E1

Equipment required (ADN)

: PP, EP

Number of blue cones/lights (ADN)

: 0

- Rail transport

Classification code (RID)

: C2

Limited quantities (RID)

: 5kg

Excepted quantities (RID)

: E1

Packing instructions (RID)

: P002, IBC08, LP02, R001

Special packing provisions (RID)

: B3

Mixed packing provisions (RID)

: MP10

Portable tank and bulk container instructions (RID)

: T1

Portable tank and bulk container special provisions (RID)

: TP33

Tank codes for RID tanks (RID)

: SGAV

Transport category (RID)

: 3

Special provisions for carriage – Bulk (RID)

: VC1, VC2, AP7

Colis express (express parcels) (RID)

: CE11

Hazard identification number (RID)

: 80

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

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SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
EC50	Median effective concentration
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
PBT	Persistent Bioaccumulative Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative

Other information : Passes EN 1276 when diluted up to 1:20 over 30 Seconds.

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2

SDS EU (Reach Annex II) GREEN

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.