

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

**1.1. Product identifier**

Product form : Mixture  
 Product name : BIOSHIELD LIME  
 Product code : 209  
 Type of product : Detergent  
 Product group : Mixture

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

**1.2.1. Relevant identified uses**

Industrial/Professional use spec : Industrial  
 For professional use only  
 Use of the substance/mixture : Cleaning/washing agents and additives

**1.2.2. Uses advised against**

No additional information available

**1.3. Details of the supplier of the safety data sheet**

Clover Chemicals Ltd  
 Clover House  
 Macclesfield Road  
 SK23 7DQ Whaley Bridge - United Kingdom  
 T 01663 733114 - F 01663 733115  
[info@cloverchemicals.com](mailto:info@cloverchemicals.com) - [www.cloverchemicals.com](http://www.cloverchemicals.com)

**1.4. Emergency telephone number**

Country	Official advisory body	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]**

Eye Dam. 1 H318

Full text of hazard classes and H-statements : see section 16

**Adverse physicochemical, human health and environmental effects**

No additional information available

**2.2. Label elements**

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

Hazard pictograms (CLP) :



GHS05

CLP Signal word : Danger  
 Hazardous ingredients : (L+)Lactic acid; Isotridecanol, ethoxylated; Ethoxylated Alcohol  
 Hazard statements (CLP) : H318 - Causes serious eye damage.  
 Precautionary statements (CLP) : P102 - Keep out of reach of children.  
 P264 - Wash hands thoroughly after handling.  
 P280 - Wear protective gloves, eye 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.  
 P337+P313 - If eye irritation persists: Get medical advice/attention.  
 EUH-statements : EUH208 - Contains D-LIMONENE. May produce an allergic reaction.

**2.3. Other hazards**

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

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## Safety Data Sheet

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

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

### 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]
Isotridecanol, ethoxylated	(CAS-no) 69011-36-5 (Einecs nr) 931-138-8 (EG annex nr) / (REACH-no) Exempted	5 – 10	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318
Ethoxylated Alcohol	(CAS-no) 157627-86-6/160901-19-9/68551-12-2/68439-50-9 (Einecs nr) 500-337-8/500-457-0/500-221-7/500-213-3 (EG annex nr) / (REACH-no) Exempted	1 – 3	Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 3, H412
(L+)Lactic acid	(CAS-no) 79-33-4 (Einecs nr) 201-196-2 (REACH-no) 01-2119474164-39	1 – 3	Skin Irrit. 2, H315 Eye Dam. 1, H318
D-LIMONENE	(CAS-no) 5989-27-5 (Einecs nr) 227-813-5 (EG annex nr) 601-029-00-7 (REACH-no) 01-2119529223-47	0.1 – 1	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H-statements: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

General advice

: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation

: Allow affected person to breathe fresh air. Allow the victim to rest.

Skin contact

: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

Eye contact

: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

Ingestion

: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Acute effects inhalation

: Inhalation may cause irritation, cough, shortness of breath.

Acute effects skin

: mild skin irritation. Red skin.

Acute effects eyes

: Causes serious eye damage. stinging, redness, itching, tears.

Acute effects oral route

: Burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. Abdominal pain, nausea.

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

No additional information available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media

: Use extinguishing media appropriate for surrounding fire. Water.

#### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire

: Toxic fumes may be released. Carbon dioxide. Carbon monoxide.

#### 5.3. Advice for firefighters

Firefighting instructions

: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

Protection during firefighting

: Do not enter fire area without proper protective equipment, including respiratory protection.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Emergency procedures

: Evacuate unnecessary personnel.

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

### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.  
Collect spillage. Store away from other materials.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

Hygiene measures : Wash hands, forearms and face thoroughly after handling.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed.

Incompatible products : Strong bases.

Packaging materials : polyethylene.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

#### Appropriate engineering controls:

Ensure that there is a suitable ventilation system.

#### Personal protective equipment:

Avoid all unnecessary exposure.

#### Hand protection:

Wear protective gloves.

#### Eye protection:

Chemical goggles or safety glasses

#### Protective equipment:

Wear suitable protective clothing

#### Personal protective equipment symbol(s):



#### Other information:

Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Liquid

Physical state/form : Liquid.

Colour : Green.

Odour : Citrus fruits.

Odour threshold : No data available

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

pH	: 2 – 2.8
Relative evaporation rate (butylacetate=1)	: No data available
Melting point/range	: 0 °C
Freezing point	: No data available
Boiling point/Boiling range	: 100 °C
Flash point	: No data available
Autoignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 1.007
Solubility	: Soluble in water.
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 30 – 70 cP at 20 °C
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

VOC content : 4 g/l

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 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

Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong bases.

### 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

#### (L+)Lactic acid (79-33-4)

LD50 oral rat	3543 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 Inhalation - Rat	> 7.94 mg/l/4h
ATE CLP (oral)	3543 mg/kg

#### Isotridecanol, ethoxylated (69011-36-5)

LD50 oral rat	> 300 (≤ 2000) mg/kg
LD50 dermal rabbit	> 2000 mg/kg
ATE CLP (oral)	500 mg/kg

Skin corrosion/irritation : Not classified  
pH: 2 – 2.8

Additional information : Based on available data, the classification criteria are not met

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Serious eye damage/irritation	: Causes serious eye damage. pH: 2 – 2.8
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met

### D-LIMONENE (5989-27-5)

IARC group	3 - Not classifiable
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Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-single exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met

### Isotridecanol, ethoxylated (69011-36-5)

NOAEL (oral, rat)	> 250 mg/kg bodyweight
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STOT-repeated exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

### (L+)Lactic acid (79-33-4)

LC50 fish 1	130 mg/l
EC50 Daphnia 1	130 mg/l
ErC50 (algae)	2800 mg/l
NOEC (acute)	1900 mg/l

### Isotridecanol, ethoxylated (69011-36-5)

LC50 fish 1	> 1 mg/l
EC50 Daphnia 1	> 1 mg/l
ErC50 (algae)	1 – 10 mg/l

### Ethoxylated Alcohol (157627-86-6/160901-19-9/68551-12-2/68439-50-9)

LC50 fish 1	0.1 – 1 mg/l (Danio rerio - OESO 203 - ECHA)
EC50 Daphnia 1	0.1 – 1 mg/l (Daphnia magna - ECHA)
ErC50 (algae)	0.1 – 1 mg/l
NOEC chronic fish	> 0.1 mg/l

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NOEC chronic algae	0.14 mg/l (CESIO)
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### 12.2. Persistence and degradability

#### BIOSHIELD LIME

Persistence and degradability	Biodegradable. 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.
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#### (L+)Lactic acid (79-33-4)

Persistence and degradability	Readily biodegradable.
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#### Isotridecanol, ethoxylated (69011-36-5)

Persistence and degradability	Readily biodegradable, according to appropriate OECD test. Not established.
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#### Ethoxylated Alcohol (157627-86-6/160901-19-9/68551-12-2/68439-50-9)

Persistence and degradability	Readily biodegradable.
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### 12.3. Bioaccumulative potential

#### BIOSHIELD LIME

Bioaccumulative potential	No bioaccumulation.
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#### (L+)Lactic acid (79-33-4)

Log Pow	-0.62
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Bioaccumulative potential	not bioaccumulative.
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#### Isotridecanol, ethoxylated (69011-36-5)

Bioaccumulative potential	No bioaccumulation. Not established.
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#### Ethoxylated Alcohol (157627-86-6/160901-19-9/68551-12-2/68439-50-9)

Bioaccumulative potential	No bioaccumulation.
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### 12.4. Mobility in soil

#### (L+)Lactic acid (79-33-4)

Ecology - soil	Small adsorption.
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### 12.5. Results of PBT and vPvB assessment

#### BIOSHIELD LIME

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

#### Component

(L+)Lactic acid (79-33-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
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Isotridecanol, ethoxylated (69011-36-5)	PBT: not relevant – no registration required vPvB: not relevant – no registration required
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### 12.6. Other adverse effects

Additional information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Waste / unused products : Avoid release to the environment.

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### SECTION 14: Transport information

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

ADR	IMDG	IATA
<b>14.1. UN number</b>		
Not regulated	Not regulated	Not regulated
<b>14.2. UN proper shipping name</b>		
Not regulated	Not regulated	Not regulated
<b>14.3. Transport hazard class(es)</b>		
Not regulated	Not regulated	Not regulated
<b>14.4. Packing group</b>		
Not regulated	Not regulated	Not regulated
<b>14.5. Environmental hazards</b>		
Not regulated	Not regulated	Not regulated
No supplementary information available		

#### 14.6. Special precautions for user

##### Overland transport

Not regulated

##### Transport by sea

Not regulated

##### Air transport

Not regulated

#### 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

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

VOC content : 4 g/l

Allergenic fragrances > 0,01%:

D-LIMONENE

Detergent Regulation (648/2004/EC): Labelling of contents:

Component	%
non-ionic surfactants	5-15%
anionic surfactants	<5%
perfumes	

##### 15.1.2. National regulations

No additional information available

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

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

### SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

#### 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
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Flam. Liq. 3	Flammable liquids, Category 3
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
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.
EUH208	Contains D-LIMONENE. May produce an allergic reaction.

#### Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Eye Dam. 1	H318	Calculation method
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SDS EU (REACH Annex II)

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.