

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878  
Issue date: 11/10/2022 Revision date: 13/05/2024 Supersedes version of: 13/05/2024 Version: 1.4

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

### 1.1. Product identifier

Product name : LS2

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

#### 1.2.1. Relevant identified uses

No additional information available

#### 1.2.2. Uses advised against

No additional information available

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

Beal UK Ltd  
Sterling Works,  
Texas Street, Tingley  
Leeds, LS27 0HG  
United Kingdom  
T 0113 253 8888  
[Sales@beal.org.uk](mailto:Sales@beal.org.uk)  
[www.beal.org.uk](http://www.beal.org.uk)

### 1.4. Emergency telephone number

Emergency number : T 0113 253 8888

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

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

Serious eye damage/eye irritation, Category 2 H319

Skin sensitisation, Category 1 H317

Full text of H- and EUH-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)



GHS07

Signal word (CLP)

: Warning

Contains

: 2-Methyl-2-propenoic acid monoester with 1,2-propanediol; Acetic acid 2-phenylhydrazide ; maleic acid

Hazard statements (CLP)

: H317 - May cause an allergic skin reaction.  
H319 - Causes serious eye irritation.

Precautionary statements (CLP)

: P261 - Avoid breathing vapours.  
P280 - Wear protective clothing, eye protection, face protection.  
P321 - Specific treatment (see supplemental first aid instruction on this label).  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P337+P313 - If eye irritation persists: Get medical advice/attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.

# B243

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 2.3. Other hazards

PBT: not relevant – no registration required

vPvB: not relevant – no registration required

Contains no PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH 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]
2-Methyl-2-propenoic acid monoester with 1,2-propanediol	CAS-No.: 27813-02-1 EC-No.: 248-666-3 REACH-no: 01-2119490226-37	$\geq 10 - < 20$	Eye Irrit. 2, H319 Skin Sens. 1B, H317
Amorphous Silica substance with national workplace exposure limit(s) (AT, CZ, DE, EE, LV, SI, MK)	CAS-No.: 7631-86-9 EC-No.: 231-545-4 REACH-no: 01-2119379499-16	$\geq 1 - < 2.5$	Not classified
$\alpha$ , $\alpha$ -dimethylbenzyl hydroperoxide substance with national workplace exposure limit(s) (LT, LV)	CAS-No.: 80-15-9 EC-No.: 201-254-7 EC Index-No.: 617-002-00-8 REACH-no: 01-2119475796-19	$\geq 0.5 - < 1$	Org. Perox. E, H242 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 3 (Inhalation), H331 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Acetic acid 2-phenylhydrazide	CAS-No.: 114-83-0	$\geq 0.5 - < 1$	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335
maleic acid	CAS-No.: 110-16-7 EC-No.: 203-742-5 EC Index-No.: 607-095-00-3	$\geq 0.5 - < 1$	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Acute Tox. 4 (Dermal), H312 (ATE=1100 mg/kg bodyweight) Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335

### Specific concentration limits:

Name	Product identifier	Specific concentration limits (%)
$\alpha$ , $\alpha$ -dimethylbenzyl hydroperoxide	CAS-No.: 80-15-9 EC-No.: 201-254-7 EC Index-No.: 617-002-00-8 REACH-no: 01-2119475796-19	(1 $\leq$ C < 3) Eye Irrit. 2, H319 (1 < C < 10) STOT SE 3, H335 (3 $\leq$ C < 10) Skin Irrit. 2, H315 (3 $\leq$ C < 10) Eye Dam. 1, H318 (10 $\leq$ C $\leq$ 100) Skin Corr. 1B, H314

# B243

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Specific concentration limits:		
Name	Product identifier	Specific concentration limits (%)
maleic acid	CAS-No.: 110-16-7 EC-No.: 203-742-5 EC Index-No.: 607-095-00-3	(0.1 ≤ C ≤ 100) Skin Sens. 1, H317

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	: Move the affected person away from the contaminated area and into the fresh air. If you feel unwell, seek medical advice.
First-aid measures after skin contact	: Wash skin with plenty of water. Get medical advice/attention.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth out with water. Drink plenty of water. Do not induce vomiting.

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

Symptoms/effects after eye contact	: redness, itching, tears.
------------------------------------	----------------------------

### 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	: Carbon dioxide. Foam. Water spray. Dry powder.
------------------------------	--

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

Hazardous decomposition products in case of fire	: Carbon dioxide. Carbon monoxide.
--	------------------------------------

### 5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers.
Protection during firefighting	: Use self-contained breathing apparatus and chemically protective clothing.

## SECTION 6: Accidental release measures

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

General measures	: Avoid contact with skin and eyes.
------------------	-------------------------------------

#### 6.1.1. For non-emergency personnel

Emergency procedures	: Avoid contact with skin and eyes.
----------------------	-------------------------------------

#### 6.1.2. For emergency responders

No additional information available

### 6.2. Environmental precautions

Avoid release to the environment. Do not allow to enter drains or water courses.

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

For containment	: Collect spillage. Absorb spilled material with sand or earth.
Methods for cleaning up	: Clean up any spills as soon as possible, using an absorbent material to collect it. This material and its container must be disposed of in a safe way, and as per local legislation.

# B243

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 6.4. Reference to other sections

See Section 8. For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling	: Avoid contact with eyes. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product. Provide local exhaust or general room ventilation.
Hygiene measures	: Take off immediately all contaminated clothing and wash it before reuse. Do not eat, drink or smoke when using this product. Wear personal protective equipment.

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

Storage conditions	: Store in a closed container. Store in a well-ventilated place.
--------------------	--

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

No additional information available

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

No additional information available

#### 8.1.5. Control banding

No additional information available

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

##### Appropriate engineering controls:

Ensure good ventilation of the work station.

#### 8.2.2. Personal protection equipment

##### Personal protective equipment:

Gloves. Safety glasses.

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



##### 8.2.2.1. Eye and face protection

##### Eye protection:

Safety glasses (EN 166). Protective goggles (EN 166)

# B243

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 8.2.2.2. Skin protection

#### Hand protection:

Gloves

### 8.2.2.3. Respiratory protection

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### 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	: Blue.
Odour	: Sweetish.
Odour threshold	: No information available.
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: > 100 °C
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: Not applicable.
Viscosity, kinematic	: Not available
Viscosity, dynamic	: 1200 – 1800 cP
Solubility	: Miscible with : Organic solvents. Water: Slightly soluble
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available.
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: 1.1 g/cm <sup>3</sup>
Relative vapour density at 20 °C	: Not available
Particle characteristics	: Not applicable

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions of use. Stable under normal conditions.

# B243

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 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

Strong acids.

### 10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. May liberate toxic gases.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

#### 2-Methyl-2-propenoic acid monoester with 1,2-propanediol (27813-02-1)

LD50 oral rat	≥ 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit	> 5000 mg/kg bodyweight Animal: rabbit, Animal sex: male

#### Amorphous Silica (7631-86-9)

LD50 oral rat	3160 mg/kg Source: TOMES; HAZARTEXT
LD50 dermal rabbit	> 5000 mg/kg Source: ECHA
LC50 Inhalation - Rat (Dust/Mist)	5.01 mg/l Source: ECHA

Skin corrosion/irritation : Not classified  
pH: Not applicable.

#### Amorphous Silica (7631-86-9)

pH	3.5 – 4.4
----	-----------

Serious eye damage/irritation : Causes serious eye irritation.  
pH: Not applicable.

#### Amorphous Silica (7631-86-9)

pH	3.5 – 4.4
----	-----------

Respiratory or skin sensitisation : May cause an allergic skin reaction.  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified

#### Amorphous Silica (7631-86-9)

IARC group	3 - Not classifiable
------------	----------------------

Reproductive toxicity : Not classified  
STOT-single exposure : Not classified

#### Acetic acid 2-phenylhydrazide (114-83-0)

STOT-single exposure	May cause respiratory irritation.
----------------------	-----------------------------------

#### maleic acid (110-16-7)

STOT-single exposure	May cause respiratory irritation.
----------------------	-----------------------------------

STOT-repeated exposure : Not classified

# B243

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 2-Methyl-2-propenoic acid monoester with 1,2-propanediol (27813-02-1)

LOAEC (inhalation, rat, gas, 90 days)	350 ppm Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study), Remarks on results: other:
NOAEL (oral, rat, 90 days)	300 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEC (inhalation, rat, gas, 90 days)	100 ppm Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study), Remarks on results: other:

### $\alpha$ , $\alpha$ -dimethylbenzyl hydroperoxide (80-15-9)

STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
------------------------	--

Aspiration hazard : Not classified

### 11.2. Information on other hazards

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term : Not classified

(acute)

Hazardous to the aquatic environment, long-term : Not classified

(chronic)

Not rapidly degradable

Additional information : No data available.

### 2-Methyl-2-propenoic acid monoester with 1,2-propanediol (27813-02-1)

LC50 - Fish [1]	233.174 mg/l Source: ECOSAR
EC50 - Crustacea [1]	> 143 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 97.2 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
NOEC (chronic)	45.2 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

### Amorphous Silica (7631-86-9)

LC50 - Fish [1]	10000 mg/l Source: ECHA
EC50 - Crustacea [1]	> 5000 mg/l Source: ECHA
EC50 72h - Algae [1]	> 173.1 mg/l Source: ECHA

### 12.2. Persistence and degradability

#### B243

Persistence and degradability	Biodegradability in water: no data available.
-------------------------------	---

### 12.3. Bioaccumulative potential

#### B243

Bioaccumulative potential	No bioaccumulation data available.
---------------------------	------------------------------------

### 2-Methyl-2-propenoic acid monoester with 1,2-propanediol (27813-02-1)

Partition coefficient n-octanol/water (Log Pow)	0.48
---	------

### Acetic acid 2-phenylhydrazide (114-83-0)

Partition coefficient n-octanol/water (Log Pow)	0.7
---	-----

# B243

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

<b>B243</b>
PBT: not relevant – no registration required
vPvB: not relevant – no registration required

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

Additional information : No other effects known

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Avoid release to the environment.
HP Code	: HP3 - "Flammable:" <ul style="list-style-type: none"><li>– flammable liquid waste: liquid waste having a flash point below 60 °C or waste gas oil, diesel and light heating oils having a flash point &gt; 55 °C and ≤ 75 °C;</li><li>– flammable pyrophoric liquid and solid waste: solid or liquid waste which, even in small quantities, is liable to ignite within five minutes after coming into contact with air;</li><li>– flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction;</li><li>– flammable gaseous waste: gaseous waste which is flammable in air at 20 °C and a standard pressure of 101.3 kPa;</li><li>– water reactive waste: waste which, in contact with water, emits flammable gases in dangerous quantities;</li><li>– other flammable waste: flammable aerosols, flammable self-heating waste, flammable organic peroxides and flammable self-reactive waste.</li></ul>
	HP13 - "Sensitising:" waste which contains one or more substances known to cause sensitising effects to the skin or the respiratory organs.

## SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
Not regulated for transport				
<b>14.2. UN proper shipping name</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.3. Transport hazard class(es)</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.4. Packing group</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.5. Environmental hazards</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated



# B243

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

ADR	IMDG	IATA	ADN	RID
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

Not regulated

#### Transport by sea

Not regulated

#### Air transport

Not regulated

#### Inland waterway transport

Not regulated

#### Rail transport

Not regulated

### 14.7. Maritime transport in bulk according to IMO instruments

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

##### REACH Annex XVII (Restriction List)

Contains no REACH substances with Annex XVII restrictions

##### REACH Annex XIV (Authorisation List)

Contains no REACH Annex XIV substances

##### REACH Candidate List (SVHC)

Contains no substance on the REACH candidate list

##### PIC Regulation (Prior Informed Consent)

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.

##### POP Regulation (Persistent Organic Pollutants)

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

##### Ozone Regulation (1005/2009)

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

##### Explosives Precursors Regulation (2019/1148)

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

##### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on drug precursors)

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

# B243

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### SECTION 16: Other information

#### Full text of H- and EUH-statements:

Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H242	Heating may cause a fire.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
Org. Perox. E	Organic Peroxides, Type E
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1B	Skin sensitisation, category 1B
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

The classification complies with : ATP 12

Safety Data Sheet (SDS), EU

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.