

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

1.1. Product identifier

Product form : Mixture
Trade name : Shirlan
Product code : IKF1216 500 SC; IBE3876
Type of product : SC (Suspension Concentrate)

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
Use of the substance/mixture : Fungicide

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Details of the supplier of the safety data sheet

Belchim Crop Protection NV/SA
Technologielaan 7
1840 Londerzeel - Belgium
T +32 (0)52 30 09 06 - F +32 (0)52 30 11 35
info@belchim.com - www.belchim.com

Marketing company

Belchim Crop Protection Limited
1b Fenice Court, Phoenix Park
Eaton Socon, St. Neots
Cambridgeshire PE19 8EW - United Kingdom
T 01480 403333 - F 01480 403444
Info-uk@belchim.com - www.belchim.co.uk

Holder of the authorisation

ISK Biosciences Europe N.V.
Pegasus Park, De Kleetlaan 12B - box 9
B-1831 Diegem - Belgium
T +32 2 627 86 11 - F +32 2 627 86 00
isk-msds@isk.be

1.4. Emergency telephone number

Emergency number : +32(0)14584545
24 H/7 days/English/French/German/Dutch

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin sensitisation, Category 1	H317
Reproductive toxicity, Category 2	H361d
Hazardous to the aquatic environment — Acute Hazard, Category 1	H400
Hazardous to the aquatic environment — Chronic Hazard, Category 1	H410
Full text of H statements : see section 16	

Adverse physicochemical, human health and environmental effects

Harmful if inhaled. May cause an allergic skin reaction. Suspected of damaging fertility or the unborn child. Very toxic to aquatic life with long lasting effects.

2.2. Label elements

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

Hazard pictograms (CLP)



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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

	GHS07	GHS08	GHS09
Signal word (CLP)	: Warning		
Hazard statements (CLP)	: H317 - May cause an allergic skin reaction. H361d - Suspected of damaging the unborn child. H410 - Very toxic to aquatic life with long lasting effects.		
Precautionary statements (CLP)	: P102 - Keep out of reach of children. P202 - Do not handle until all safety precautions have been read and understood. P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P280 - Wear protective gloves/protective clothing. P308+P313 - IF exposed or concerned: Get medical advice/attention. P302+P352 - IF ON SKIN: Wash with plenty of soap and water. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P391 - Collect spillage. P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste		
EUH-statements	: EUH066 - Repeated exposure may cause skin dryness or cracking. EUH401 - To avoid risks to human health and the environment, comply with the instructions for use.		

2.3. Other hazards

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

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]
Fluazinam (ISO)	(CAS-No.) 79622-59-6 (EC-No.) 612-287-00-5	25 – 50	Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1A, H317 Repr. 2, H361d Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)
Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-[2,4,6-tris(1-p henylethyl)phenoxy]-, ammonium salt	(CAS-No.) 119432-41-6	1 – 5	Eye Irrit. 2, H319 Aquatic Chronic 3, H412
Quarz (SiO ₂)	(CAS-No.) 14808-60-7 (EC-No.) 238-878-4	< 0,1	Not classified
1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	(CAS-No.) 2634-33-5 (EC-No.) 220-120-9 (EC Index-No.) 613-088-00-6	< 0,05	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400

Specific concentration limits:

Name	Product identifier	Specific concentration limits
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1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	(CAS-No.) 2634-33-5 (EC-No.) 220-120-9 (EC Index-No.) 613-088-00-6	(0,05 ≤C < 100) Skin Sens. 1, H317
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Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Consult a doctor/medical service if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact	: Wash skin with mild soap and water. If case of redness or irritation, call a doctor.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Do not apply (chemical) neutralizing agents. Consult an ophtalmologist if irritation persists.
First-aid measures after ingestion	: Do not induce vomiting. Do not give an unconscious person anything to drink. Consult a doctor/medical service if you feel unwell. Rinse mouth out with water.

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

Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Symptoms/effects after eye contact	: May cause slight 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	: All extinguishing agents can be used.
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5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Toxic and corrosive vapours may be released. Nitrous fumes. hydrogenchloride. Hydrofluoric Acid. Carbon oxides (CO, CO ₂). Sulphur oxides.
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5.3. Advice for firefighters

Firefighting instructions	: Dilute toxic gases with water spray. Contain the extinguishing fluids by bunding (the product is hazardous for the environment).
Protection during firefighting	: Gloves. Full protective flameproof clothing. Heat/fire exposure: compressed air/oxygen apparatus. Gas-tight suit.
Other information	: Do not dispose of fire-fighting water in the environment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Evacuate area.
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6.1.1. For non-emergency personnel

Protective equipment	: Concerning personal protective equipment to use, see section 8.
Emergency procedures	: Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment	: Protective clothing. Protective gloves.
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6.2. Environmental precautions

Stop leak if safe to do so. Contain leaking substance, pump over in suitable containers. Do not allow uncontrolled discharge of product into the environment. Do not flush into surface water or sewer system. Contain the spilled material by bunding.

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

6.3. Methods and material for containment and cleaning up

- For containment : Take up liquid spill into absorbent material, e.g.: sand/earth. Shovel into suitable and closed container for disposal. Carefully collect remainder.
- Methods for cleaning up : Clean contaminated surfaces with an excess of water.
- 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 : Do not get in eyes, on skin, or on clothing. Do not discharge into drains or the environment.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Separate working clothes from town clothes. Launder separately.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : The floor of the depot should be impermeable and designed to form a water-tight basin.
- Storage conditions : Store in a dry, cool area. Protect from heat and direct sunlight. Keep the container hermetically sealed. Keep out of the reach of children. Keep away from food, drink and animal feeding stuffs.
- Special rules on packaging : Store in original container.

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

Quarz (SiO ₂) (14808-60-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Silica crystalline (Quartz)
IOEL TWA	< 0,05 mg/m ³ Silica, respirable crystalline
Notes	(Year of adoption 2003)
Regulatory reference	SCOEL Recommendations

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:

Provide local exhaust or general room ventilation.

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8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:
Safety glasses. Face shield

8.2.2.2. Skin protection

Skin and body protection:
Wear suitable protective clothing

Hand protection:
Protective gloves. Breakthrough time : refer to the recommendations of the supplier

Other skin protection
Materials for protective clothing:
PVC or other plastic material or natural rubber gloves

8.2.2.3. Respiratory protection

Respiratory protection:
[In case of inadequate ventilation] wear respiratory protection. High gas/vapour concentration: gas mask with filter type A

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	: light yellow.
Appearance	: SC (Suspension Concentrate).
Odour	: odourless.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not applicable
Explosive properties	: Not explosive.
Oxidising properties	: Non oxidizing.
Explosive limits	: Not available
Lower explosive limit (LEL)	: Not available
Upper explosive limit (UEL)	: Not available
Flash point	: Not applicable.
Auto-ignition temperature	: Not self-igniting
Decomposition temperature	: Not available
pH	: Not available
pH solution	: 5,4 – 6,56 (1% w/v)
Viscosity, kinematic	: Not available
Viscosity, dynamic	: 43,8 – 92,8 mPa·s (40 °C; 258 - 64.5/s)
Solubility	: Not available

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: 1,228 – 1,29 g/cm ³ (20 °C - ambient temperature)
Relative density	: 1,228 – 1,29 (20 °C - ambient temperature)
Relative vapour density at 20 °C	: Not available
Particle size	: Not applicable
Particle size distribution	: Not applicable
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle aggregation state	: Not applicable
Particle agglomeration state	: Not applicable
Particle specific surface area	: Not applicable
Particle dustiness	: 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

Additional information : Surface tension : 53,1 mN/m

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

Avoid formation of vapours.

10.5. Incompatible materials

No additional information available

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 hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

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LD50 oral rat	> 2000 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg bodyweight
LC50 Inhalation - Rat	> 1,15 mg/l/4h (OECD 403)

Skin corrosion/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met Not irritating to rabbits on cutaneous application

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Serious eye damage/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met Slightly irritating to rabbits on ocular application
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Additional information	: Guinea pig
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

Fluazinam (ISO) (79622-59-6)

NOAEL (chronic, oral, animal/male, 2 years)	1,9 mg/kg bodyweight
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Reproductive toxicity	: Suspected of damaging the unborn child.
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Fluazinam (ISO) (79622-59-6)

NOAEL (animal/male, F0/P)	1,5 mg/kg bodyweight (day; rat)
NOAEL (animal/male, F1)	7,26 mg/kg (day; rat)

STOT-single exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-repeated exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met

Fluazinam (ISO) (79622-59-6)

NOAEL (oral, rat, 90 days)	4,1 mg/kg bodyweight/day
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Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Very toxic to aquatic life.
Hazardous to the aquatic environment, long-term (chronic)	: Very toxic to aquatic life with long lasting effects.

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LC50 - Fish [1]	0,16 mg/l (96 H; Oncorhynchus mykiss; OECD 203)
EC50 - Crustacea [1]	0,31 mg/l (48 H; Daphnia magna; OECD 202)
ErC50 algae	> 5,7 mg/l (72 H; Pseudokirchneriella subcapitata; OECD 201)

Fluazinam (ISO) (79622-59-6)

NOEC chronic fish	0,0029 mg/l (278d - Pimephales promelas)
NOEC chronic crustacea	0,0125 mg/l (21d - Daphnia magna)

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12.2. Persistence and degradability

Fluazinam (ISO) (79622-59-6)	
Persistence and degradability	Not readily biodegradable.

12.3. Bioaccumulative potential

Fluazinam (ISO) (79622-59-6)	
BCF - Fish [1]	1090 (Lepomis macrochirus)
Partition coefficient n-octanol/water (Log Pow)	4,03 (25 °C; pH 5.5-7)

12.4. Mobility in soil

Fluazinam (ISO) (79622-59-6)	
Partition coefficient n-octanol/water (Log Koc)	3,29

12.5. Results of PBT and vPvB assessment

Shirlan	
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	

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	:
Waste treatment methods	: Do not dispose of with domestic waste.
Product/Packaging disposal recommendations	: Incinerate at a licensed installation. Dispose of in accordance with relevant local regulations.
European List of Waste (LoW) code	: 02 01 08* - agrochemical waste containing dangerous substances 15 01 10* - packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
Special provision(s) applied : 375	Special provision(s) applied : 969	Special provision(s) applied : A197	Special provision(s) applied : 375	Special provision(s) applied : 375
These substances when carried in single or combination packagings containing a net quantity per single or inner packaging of 5 l or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids, are not subject to any other provisions of ADR provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.				
14.1. UN number or ID number				
UN 3082	UN 3082	UN 3082	UN 3082	UN 3082

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878






14.2. UN proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluazinam)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluazinam)	Environmentally hazardous substance, liquid, n.o.s. (Fluazinam)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluazinam)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluazinam)
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Transport document description

UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluazinam), 9, III, (-)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluazinam), 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (Fluazinam), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluazinam), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluazinam), 9, III
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14.3. Transport hazard class(es)

9	9	9	9	9
				

14.4. Packing group

III	III	III	III	III
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14.5. Environmental hazards

Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes
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No supplementary information available

14.6. Special precautions for user

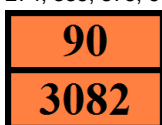
Overland transport

Special provisions (ADR)

: 274, 335, 375, 601

Orange plates

:



EAC code

: •3Z

Transport by sea

No data available

Air transport

No data available

Inland waterway transport

Classification code (ADN)

: M6

Number of blue cones/lights (ADN)

: 0

Rail transport

No data available

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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

15.1.2. National regulations

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:			
Section	Changed item	Change	Comments
	Revision date	Modified	
	Supersedes	Modified	
	SDS EU format	Modified	
1.1	Name	Modified	
1.1	UFI	Added	
2.2	EUH-statements	Added	

Abbreviations and acronyms:	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOEC	No-Observed Effect Concentration
PBT	Persistent Bioaccumulative Toxic
OECD	Organisation for Economic Co-operation and Development
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
vPvB	Very Persistent and Very Bioaccumulative

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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. SDS of suppliers. ECHA (European Chemicals Agency).

Full text of H- and EUH-statements:	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
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
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1A	Skin sensitisation, category 1A
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.
H332	Harmful if inhaled.
H361d	Suspected of damaging the unborn child.
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.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

Safety Data Sheet (SDS), EU_2021-01-07

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.