

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; IBE 3876; C01829
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

Certis Belchim B.V.,
Suite 5, 3 Riverside, Granta Park,
Great Abington Cambridgeshire, CB21 6AD.
United Kingdom
T +44 (0)1223 652500, F +44 (0)1223 891210
info.uk@certisbelchim.com, www.certisbelchim.com

1.4. Emergency telephone number

Emergency number : +44 1235 239670
24 H/7 days

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)	

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- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

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

Shirlan

Safety Data Sheet

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

2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

Hazard statements (CLP)

Precautionary statements (CLP)

EUH-statements

Extra phrases

- : Warning
- : H317 - May cause an allergic skin reaction.
H361d - Suspected of damaging the unborn child.
H410 - Very toxic to aquatic life with long lasting effects.
- : P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P261 - Avoid breathing mist, vapours, spray.
P264 - Wash hands thoroughly after handling.
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 water.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean triple-rinsed containers which can be disposed of as non-hazardous waste.
- : EUH401 - To avoid risks to human health and the environment, comply with the instructions for use.
- : For additional information regarding the extra phrases (SP), please refer to the label.

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

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

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	$\geq 25 - \leq 50$	Acute Tox. 4 (Inhalation), H332 (ATE=1.5 mg/l/4h) 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	$\geq 1 - \leq 5$	Eye Irrit. 2, H319 Aquatic Chronic 3, H412

Shirlan

Safety Data Sheet

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

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Quarz (SiO ₂)	CAS-No.: 14808-60-7 EC-No.: 238-878-4	< 0.1	Not classified
1,2-benzisothiazol-3(2H)-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 (ATE=500 mg/kg bodyweight) Acute Tox. 2 (Inhalation:dust,mist), H330 (ATE=0.05 mg/l/4h) Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Comments : Contains :
<0.1%
Silica, respirable crystalline

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 general : Consult a doctor/medical service if you feel unwell.
First-aid measures after inhalation : Respiratory problems: consult a doctor/medical service. Move the affected person to the fresh air.
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 ophthalmologist 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.

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, CO₂). Sulphur oxides.

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.

Shirlan

Safety Data Sheet

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate area.

6.1.1. For non-emergency personnel

Protective equipment : For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures : Avoid contact with skin and eyes. Avoid breathing vapours.

6.1.2. For emergency responders

Protective equipment : Protective clothing. Protective gloves.

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.

6.3. Methods and material for containment and cleaning up

For containment : Take up liquid spill into absorbent material. 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 the waste into the drain.
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 (SiO₂) (14808-60-7)

EU - Indicative Occupational Exposure Limit (IOEL)

Local name	Silica crystalline (Quartz)
IOEL TWA	0.05 mg/m ³ (respirable dust)
Remark	(Year of adoption 2003)

Shirlan

Safety Data Sheet

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

Quarz (SiO ₂) (14808-60-7)	
Regulatory reference	SCOEL Recommendations
EU - Binding Occupational Exposure Limit (BOEL)	
Local name	Respirable crystalline silica dust
BOEL TWA	0.1 mg/m ³ (Respirable fraction)
Regulatory reference	DIRECTIVE (EU) 2019/130 (amending Directive 2004/37/EC)

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.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety goggles. Face shield

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves. The protective gloves to be used must comply with the specifications of the regulation 2016/425 and the resultant standard ISO 374-1. PVC or other plastic material or natural rubber gloves. Breakthrough time : refer to the recommendations of the supplier

Other skin protection

Materials for protective clothing:

rubber or plastic gloves. Polyvinylchloride (PVC)

8.2.2.3. Respiratory protection

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.

Shirlan

Safety Data Sheet

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

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	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flammability	: Not available
Explosive properties	: Not explosive.
Oxidising properties	: Non oxidizing.
Explosive limits	: Not available
Lower explosion limit	: No data available
Upper explosion limit	: No data available
Flash point	: Not applicable.
Auto-ignition temperature	: Not self-igniting
Decomposition temperature	: No data available
pH	: No data available
pH solution	: 5.4 – 6.56 (1% w/v)
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: 61.8 – 123 mPa·s (20 °C); 92.8 - 43.8 mPa·s (40 °C)
Solubility	: No data available.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Vapour pressure	: No data available
Vapour pressure at 50°C	: No data available
Density	: 1.29 g/cm ³ (20 °C)
Relative density	: 1.29 (20 °C)
Relative vapour density at 20°C	: No data 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

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

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable at ambient temperature and under normal conditions of use.

10.3. Possibility of hazardous reactions

None to our knowledge.

10.4. Conditions to avoid

Avoid formation of vapours.

10.5. Incompatible materials

None to our knowledge.

Shirlan

Safety Data Sheet

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

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) (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) (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) (Based on available data, the classification criteria are not met)

Shirlan	
LD50 oral rat	> 2000 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg bodyweight
LC50 Inhalation - Rat	> 1.15 mg/l/4h (OECD 403 method)
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) (Based on available data, the classification criteria are not met) pH: No data available
Additional information	: Not irritating to rabbits on cutaneous application
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) (Based on available data, the classification criteria are not met) pH: No data available
Additional information	: 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 (Based on available data, the classification criteria are not met) (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met) (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 rat
Reproductive toxicity	: Suspected of damaging the unborn child.

Fluazinam (ISO) (79622-59-6)	
NOAEL (animal/male, F0/P)	1.5 mg/kg bodyweight rat
NOAEL (animal/male, F1)	7.26 mg/kg rat
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met) (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met) (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

1,2-benzisothiazol-3(2H)-one (2634-33-5)	
NOAEL (oral, rat, 90 days)	69 mg/kg bodyweight/day
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met) (Based on available data, the classification criteria are not met)

Shirlan	
Viscosity, kinematic	Not applicable

Shirlan

Safety Data Sheet

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

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : The substance/mixture has no endocrine disrupting properties.

11.2.2. Other information

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.

Shirlan	
LC50 - Fish [1]	0.16 mg/l (96H; Oncorhynchus mykiss (Rainbow trout); OECD 203)
EC50 - Crustacea [1]	0.31 mg/l (48H; Daphnia magna; OECD 202)
ErC50 algae	> 5.7 mg/l (7 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)

12.2. Persistence and degradability

Fluazinam (ISO) (79622-59-6)

Persistence and degradability : Not readily biodegradable.

Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-[2,4,6-tris(1-p henylethyl)phenoxy]-, ammonium salt (119432-41-6)

Biodegradation : 0 % (28d)

1,2-benzisothiazol-3(2H)-one (2634-33-5)

Persistence and degradability : Inherently biodegradable.

12.3. Bioaccumulative potential

Shirlan	
Partition coefficient n-octanol/water (Log Pow)	No data available

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)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.29

Shirlan

Safety Data Sheet

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

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

Adverse effects on the environment caused by endocrine disrupting properties : The substance/mixture has no endocrine disrupting properties.

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Do not dispose of with domestic waste. Remove to an authorized incinerator with energy recovery.

Product/Packaging disposal recommendations : Incinerate at a licensed installation. Dispose of in accordance with relevant local regulations.

European List of Waste (LoW, EC 2000/532) : 02 01 08* - agrochemical waste containing dangerous substances
15 01 10* - packaging containing residues of or contaminated by dangerous substances

HP Code : HP6 - "Acute Toxicity:" waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure.
HP4 - "Irritant – skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye.
HP13 - "Sensitising:" waste which contains one or more substances known to cause sensitising effects to the skin or the respiratory organs.
HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment

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
---------	---------	---------	---------	---------

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)
---	---	---	---	---

Shirlan

Safety Data Sheet

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

ADR	IMDG	IATA	ADN	RID
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
14.3. Transport hazard class(es)				
9	9	9	9	9
14.4. Packing group				
III	III	III	III	III
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
No supplementary information available				

14.6. Special precautions for user

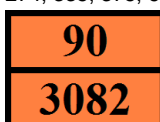
Overland transport

Special provisions (ADR)

: 274, 335, 375, 601

Orange plates

:



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

Shirlan

Safety Data Sheet

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

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 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 the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

Not subject

SECTION 16: Other information

Indication of changes

Section	Changed item	Change	Comments
	Revision date	Modified	
	Supersedes	Modified	
1.1	Product code	Modified	
1.4	Emergency procedures	Modified	
11.2.	Adverse health effects caused by endocrine disrupting properties	Added	
12.6	Adverse effects on the environment caused by endocrine disrupting properties	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

Shirlan

Safety Data Sheet

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

Abbreviations and acronyms:	
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
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ATE	Acute Toxicity Estimate
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
NOAEL	No-Observed Adverse Effect Level
OEL	Occupational Exposure Limit
PNEC	Predicted No-Effect Concentration
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
ED	Endocrine disrupting properties

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. 2 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 2
--	--

Shirlan

Safety Data Sheet

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

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
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
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.
H330	Fatal if inhaled.
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.
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

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

Skin Sens. 1	H317	Calculation method
Repr. 2	H361d	Calculation method
Aquatic Acute 1	H400	On basis of test data
Aquatic Chronic 1	H410	Calculation method

Safety Data Sheet (SDS), EU Certis Belchim

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.