

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

1.1. Product identifier

Product form : Substance
Name : Cyfluthrin techn. min. 95%
EC index no : 607-253-00-1
EC no : 269-855-7
CAS No : 68359-37-5
Type of product : Biocide

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 : Insecticide

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

No additional information available

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Remark
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Centre Hospitalier Universitaire de Constantine	Avonley Road SE14 5ER London	0870 243 2241	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute toxicity (oral), Category 2 H300
Acute toxicity (inhalation:dust,mist) Category 3 H331
Hazardous to the aquatic environment — Acute Hazard, Category 1 H400 (M=1000)
Hazardous to the aquatic environment — Chronic Hazard, Category 1 H410 (M=1000)

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Very toxic to aquatic life with long lasting effects. Fatal if swallowed. Toxic if inhaled.

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS06

GHS09

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H300 - Fatal if swallowed
H331 - Toxic if inhaled
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (CLP) :

P264 - Wash hands thoroughly after handling
P273 - Avoid release to the environment
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor
P330 - Rinse mouth
P391 - Collect spillage
P501 - Dispose of contents/container to hazardous or special waste collection point

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

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. Substance

Name	: Cyfluthrin techn. min. 95%
CAS No	: 68359-37-5
EC no	: 269-855-7
EC index no	: 607-253-00-1

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Cyfluthrin	(CAS No) 68359-37-5 (EC no) 269-855-7 (EC index no) 607-253-00-1	>= 95	Acute Tox. 2 (Oral), H300 Acute Tox. 3 (Inhalation:dust,mist), H331 Aquatic Acute 1, H400 (M=1000) Aquatic Chronic 1, H410 (M=1000)

Full text of H-phrases: see section 16

3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.
First-aid measures after skin contact	: Remove contaminated clothes. Wash skin with plenty of water. If skin irritation persists, take medical advice.
First-aid measures after eye contact	: Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persist.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting without medical advice. Get immediate medical advice/attention.

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

Symptoms/injuries after inhalation	: Toxic if inhaled.
Symptoms/injuries after ingestion	: Fatal if swallowed.

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	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Non flammable.
Explosion hazard	: No direct explosion hazard.
Hazardous decomposition products in case of fire	: For further information, refer to section 10 : "Stability and Reactivity".

5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
Other information	: Prevent fire fighting water from entering the environment.

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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. Only qualified personnel equipped with suitable protective equipment may intervene. Avoid breathing dust.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. For further information refer to section 8 : "Exposure-controls/personal protection".

Emergency procedures : Ventilate area.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Mechanically recover the product.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8 : "Exposure-controls/personal protection". Concerning disposal elimination after cleaning, see item 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Concerning personal protective equipment to use, see item 8. Use only outdoors or in a well-ventilated area. Avoid breathing dust.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool well ventilated place. Keep container tightly closed. Store locked up.

Incompatible products : Strong bases. Strong acids.

Heat and ignition sources : Keep away from heat and direct sunlight.

7.3. Specific end use(s)

Insecticide.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Personal protective equipment : Protective clothing. Gloves. Safety glasses. Dust production: dust mask with filter type P3.

Hand protection : Wear suitable gloves resistant to chemical penetration. Chemical resistant gloves (according to European standard NF EN 374 or equivalent). Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Since the product consists of several substances, it is not possible to estimate the durability of the glove material beforehand. Thus it needs to be tested before use

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Reusable gloves, Disposable gloves	nitrile rubber (NBR), Neoprene rubber (HNBR), Polyvinylchloride (PVC)	6 (> 480 minutes)	≥ 0.11		EN 374

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Eye protection : Safety glasses. DIN EN 166
Skin and body protection : Wear suitable protective clothing. CEN : EN 340; EN 368; EN 369; EN 467. EN 13034
Respiratory protection : Wear respiratory protection. (FFP2)

Device	Filter type	Condition	Standard
Dust mask	Type P2	Dust protection	EN 149



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 : Solid
Colour : White.
Odour : slight. characteristic.
Odour threshold : No data available
pH : No data available
Relative evaporation rate (butylacetate=1) : No data available
Melting point : 79 °C
Freezing point : No data available
Boiling point : No data available
Flash point : No data available
Auto-ignition temperature : No data available
Decomposition temperature : 210 °C
Flammability (solid, gas) : No data available
Vapour pressure : 0,0003 mPa 25°C
Relative vapour density at 20 °C : No data available
Relative density : No data available
Density : 1,34 g/cm³ 22°C
Solubility : Material insoluble in water.
Log Pow : 6
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidising properties : No data available
Explosive limits : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known.

10.4. Conditions to avoid

Keep out of direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Combustion generates : Carbon oxides (CO, CO₂). Nitrogen oxides (NO_x). hydrogenchloride. Hydrogen cyanide. hydrofluoric acid.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Fatal if swallowed. Inhalation:dust,mist: Toxic if inhaled.

Cyfluthrin techn. min. 95% (68359-37-5)	
LD50 oral rat	500 mg/kg in xylol; 900 mg/kg in PEG 400; 20 mg/kg in water/cremophor
LD50 dermal rat	> 5000 mg/kg
LC50 inhalation rat (mg/l)	0,5 mg/l/4h

Cyfluthrin (68359-37-5)	
LD50 oral rat	500 mg/kg in xylol; 900 mg/kg in PEG 400; 20 mg/kg in water/cremophor
LD50 dermal rat	> 5000 mg/kg
LC50 inhalation rat (mg/l)	0,5 mg/l/4h

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
Specific target organ toxicity (single exposure) : Not classified
Specific target organ toxicity (repeated exposure) : Not classified
Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

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

Cyfluthrin techn. min. 95% (68359-37-5)	
LC50 fishes 1	0,0032 mg/l <i>Leuciscus idus</i>
LC50 fish 2	0,00047 mg/l <i>Oncorhynchus mykiss</i> ; 0,0015 mg/l <i>Lepomis macrochirus</i>
EC50 Daphnia 1	0,00016 mg/l
EC50 72h algae (1)	> 10 mg/l <i>Selenastrum capricornutum</i>

Cyfluthrin (68359-37-5)	
LC50 fishes 1	0,0032 mg/l <i>Leuciscus idus</i>
LC50 fish 2	0,00047 mg/l <i>Oncorhynchus mykiss</i> ; 0,0015 mg/l <i>Lepomis macrochirus</i>
EC50 Daphnia 1	0,00016 mg/l
EC50 72h algae (1)	> 10 mg/l <i>Selenastrum capricornutum</i>

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Cyfluthrin techn. min. 95% (68359-37-5)	
Log Pow	6

Cyfluthrin (68359-37-5)	
Log Pow	6

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Cyfluthrin techn. min. 95% (68359-37-5)	
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	
Cyfluthrin (68359-37-5)	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. Other adverse effects

Additional information : Avoid release to the environment

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
Additional information	: Empty containers should be taken for recycle, recovery or waste in accordance with local regulation.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
3349	3349	3349	3349	3349
14.2. UN proper shipping name				
PYRETHROID PESTICIDE, SOLID, TOXIC	PYRETHROID PESTICIDE, SOLID, TOXIC	Pyrethroid pesticide, solid, toxic	PYRETHROID PESTICIDE, SOLID, TOXIC	PYRETHROID PESTICIDE, SOLID, TOXIC
Transport document description				
UN 3349 PYRETHROID PESTICIDE, SOLID, TOXIC (Cyfluthrin), 6.1, III, (E), ENVIRONMENTALLY HAZARDOUS	UN 3349 PYRETHROID PESTICIDE, SOLID, TOXIC, 6.1, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 3349 Pyrethroid pesticide, solid, toxic, 6.1, III, ENVIRONMENTALLY HAZARDOUS	UN 3349 PYRETHROID PESTICIDE, SOLID, TOXIC, 6.1, III, ENVIRONMENTALLY HAZARDOUS	UN 3349 PYRETHROID PESTICIDE, SOLID, TOXIC, 6.1, III, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)				
6.1	6.1	6.1	6.1	6.1
				
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

Classification code (ADR)	: T7
Special provisions (ADR)	: 61, 274, 648
Limited quantities (ADR)	: 5kg
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P002, IBC08, LP02, R001
Special packing provisions (ADR)	: B3
Mixed packing provisions (ADR)	: MP10
Portable tank and bulk container instructions (ADR)	: T1
Portable tank and bulk container special provisions (ADR)	: TP33
Tank code (ADR)	: SGAH, L4BH
Tank special provisions (ADR)	: TU15, TE19
Vehicle for tank carriage	: AT
Transport category (ADR)	: 2
Special provisions for carriage - Bulk (ADR)	: VC1, VC2, AP7
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV13, CV28
Special provisions for carriage - Operation (ADR)	: S9
Hazard identification number (Kemler No.)	: 60

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Orange plates

:



Tunnel restriction code (ADR)

: E

EAC code

: 2X

- Transport by sea

Special provisions (IMDG)

: 61, 223, 274

Limited quantities (IMDG)

: 5 kg

Excepted quantities (IMDG)

: E1

Packing instructions (IMDG)

: P002, LP02

IBC packing instructions (IMDG)

: IBC08

IBC special provisions (IMDG)

: B3

Tank instructions (IMDG)

: T1

Tank special provisions (IMDG)

: TP33

EmS-No. (Fire)

: F-A

EmS-No. (Spillage)

: S-A

Stowage category (IMDG)

: A

Stowage and handling (IMDG)

: SW2

Properties and observations (IMDG)

: Solid pesticides present a very wide range of toxic hazard. Toxic if swallowed, by skin contact or by inhalation.

MFAG-No

: 151

- Air transport

PCA Excepted quantities (IATA)

: E1

PCA Limited quantities (IATA)

: Y645

PCA limited quantity max net quantity (IATA)

: 10kg

PCA packing instructions (IATA)

: 670

PCA max net quantity (IATA)

: 100kg

CAO packing instructions (IATA)

: 677

CAO max net quantity (IATA)

: 200kg

Special provisions (IATA)

: A3, A5

ERG code (IATA)

: 6L

- Inland waterway transport

Classification code (ADN)

: T7

Special provisions (ADN)

: 61, 274, 648, 802

Limited quantities (ADN)

: 5 kg

Excepted quantities (ADN)

: E1

Equipment required (ADN)

: PP, EP

Number of blue cones/lights (ADN)

: 0

- Rail transport

Classification code (RID)

: T7

Special provisions (RID)

: 61, 274, 648

Limited quantities (RID)

: 5kg

Excepted quantities (RID)

: E1

Packing instructions (RID)

: P002, IBC08, LP02, R001

Special packing provisions (RID)

: B3

Mixed packing provisions (RID)

: MP10

Portable tank and bulk container instructions (RID)

: T1

Portable tank and bulk container special provisions (RID)

: TP33

Tank codes for RID tanks (RID)

: SGAH, L4BH

Special provisions for RID tanks (RID)

: TU15

Transport category (RID)

: 2

Special provisions for carriage – Bulk (RID)

: VC1, VC2, AP7

Special provisions for carriage - Loading, unloading and handling (RID)

: CW13, CW28, CW31

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Colis express (express parcels) (RID) : CE11, CE12
Hazard identification number (RID) : 60

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

No REACH Annex XVII restrictions

Cyfluthrin techn. min. 95% is not on the REACH Candidate List

Cyfluthrin techn. min. 95% is not on the REACH Annex XIV List

Type of product (Biocide) 18 - Insecticides, acaricides and products to control other arthropods

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

SDS	Safety Data Sheet
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
PBT	Persistent Bioaccumulative Toxic
vPvB	Very Persistent and Very Bioaccumulative
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
RID	Regulations concerning the International Carriage of Dangerous Goods by Rai
ICAO	ICAO - International Civil Aviation Organization
LC50	Median lethal concentration
LD50	Median lethal dose
CAS	CAS (Chemical Abstracts Service) number
	EG-nr.: EINECS- en ELINCS-number
	EINECS: European Inventory of Existing Commercial Substances
NOEC	No-Observed Effect Concentration
	STOT: Specific Target Organ Toxicity
PNEC	Predicted No-Effect Concentration
	PEC: Predicted Environmental Concentration
	OEL: Occupational Exposure Limit

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

Other information : REACH Disclaimer:
This information is based on current knowledge. Consistency of data in the SDS with CSR is considered, as far as the information is available at the time of compilation (cfr Revision date and Version number). **DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

Full text of H- and EUH-statements:

Acute Tox. 2 (Oral)	Acute toxicity (oral), Category 2
Acute Tox. 3 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 3

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Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
H300	Fatal if swallowed
H331	Toxic if inhaled
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Safety Data Sheet applicable for regions : GB - United Kingdom

This Safety Data Sheet is compiled by :
Trade Wind B.V. (info@twnl.com)

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