



SUMITOMO CHEMICAL AGRO EUROPE S.A.S.

SAFETY DATA SHEET

Esfenvalerate 5 EC

According to Regulation (EC) No 1907/2006 (REACH)

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

1.1. Product identifier

Product name	Esfenvalerate 5 EC
Name	Esfenvalerate, 50 g/l emulsifiable concentrate
GIFAP Code	EC
Reference of the SDS	SA5ECsxR506EU/560gb
Product number	R506
Synonyms; trade names	SUMI ALPHA, Asana, Sumi-Alpha, SUMICIDIN TOP, Sumicidin Alpha EC, Sumi Alpha 5 EC, Sumicidin 5 EC, Sumi Alfa 5 EC, WIZARD, Caronte, Mustang EC, OASIS 5 EC, Sumi Alpha 050 EC, Sumialpha 5 EC, SUMI-ALPHA 5 EC, Sumicidin 050 EC

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

Identified uses	Insecticide (agricultural use)
Uses advised against	Not for public use

1.3. Details of the supplier of the safety data sheet

Supplier	SUMITOMO CHEMICAL AGRO EUROPE S.A.S Parc d'affaires de Crécy 10A rue de la voie lactée 69370 Saint-Didier-Au-Mont-D'Or France +33 (0)4 78 64 32 60 sds@sumitomo-chemical.eu
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1.4. Emergency telephone number

Emergency telephone	24 hours/24 Europe: +44 (0) 1235 239 670 Middle East & Africa: +44 (0) 1235 239 671
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (SI 2019 No. 720)

Classified as hazardous according to	regulation (EC) No 1272/2008 (CLP)
Physical hazards	Flam. Liq. 3 - H226
Health hazards	Acute Tox. 4 - H302 Acute Tox. 4 - H332 Eye Dam. 1 - H318 Skin Sens. 1A - H317 STOT SE 2 - H371 STOT SE 3 - H335 STOT RE 2 - H373 Asp. Tox. 1 - H304
Environmental hazards	Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

2.2. Label elements

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Hazard pictograms



Signal word

Danger

Hazard statements

H226 Flammable liquid and vapour.
 H302+H332 Harmful if swallowed or if inhaled.
 H318 Causes serious eye damage.
 H317 May cause an allergic skin reaction.
 H371 May cause damage to organs (Nervous system).
 H335 May cause respiratory irritation.
 H373 May cause damage to organs through prolonged or repeated exposure.
 H304 May be fatal if swallowed and enters airways.
 H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P260 Do not breathe fume/gas/mist/vapours/spray.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
 P331 Do NOT induce vomiting.
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
 P405 Store locked up.
 P501 Dispose of contents/ container in accordance with local regulations.

Supplemental label information

EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

Contains

XYLENE, ETHYLBENZENE, (S)-.alpha.-Cyano-3-phenoxybenzyl (S)-2-(4-chlorophenyl)-3-methylbutyrate, TOLUENE, Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts

Special Risks and safety precautions (Commission Regulation (EU) 547/2011) : General provisions

SP1 : Do not contaminate water with the product or its container (Do not clean application equipment near surface water).

Special Risks and safety precautions (Commission Regulation (EU) 547/2011): Specific safety precautions

SPo 2: Wash all protective clothing after use.
 SPe 3: To protect aquatic organisms respect an unsprayed buffer zone of (as indicated on the label) to surface water bodies.

2.3. Other hazards

May cause a transient itching and/or burning sensation in exposed human skin (paresthesia).

SECTION 3: Composition/information on ingredients

3.1. Substances

Classification according to
Regl 1272/2008

3.2. Mixtures

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Classification according to Regl 1272/2008

XYLENE	≥ 20%
CAS number: 1330-20-7	EC number: 215-535-7
Classification Flam. Liq. 3 - H226 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335 STOT RE 2 - H373 Asp. Tox. 1 - H304 Aquatic Chronic 3 - H412	
ETHYLBENZENE	≥ 10 - <50%
CAS number: 100-41-4	EC number: 202-849-4
Classification Flam. Liq. 2 - H225 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335 STOT RE 2 - H373 Asp. Tox. 1 - H304 Aquatic Chronic 3 - H412	
(S)-.alpha.-Cyano-3-phenoxybenzyl (S)-2-(4-chlorophenyl)-3-methylbutyrate	6.7%
CAS number: 66230-04-4	
M factor (Acute) = 10000	M factor (Chronic) = 100000
Classification Acute Tox. 3 - H301 Acute Tox. 3 - H331 Skin Sens. 1 - H317 STOT SE 1 - H370 STOT RE 2 - H373 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	

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2-PHENOXYETHANOL	≥ 1 - <10%
CAS number: 122-99-6	EC number: 204-589-7
Classification	
Acute Tox. 4 - H302	
Eye Irrit. 2 - H319	
TOLUENE	≥ 1 - <3%
CAS number: 108-88-3	EC number: 203-625-9
Substance with a Community workplace exposure limit.	
Classification	
Flam. Liq. 2 - H225	
Skin Irrit. 2 - H315	
Repr. 2 - H361d	
STOT SE 3 - H336	
STOT RE 2 - H373	
Asp. Tox. 1 - H304	
Aquatic Chronic 3 - H412	
Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts	≥ 1 - < 3%
CAS number: 68953-96-8	EC number: 273-234-6
Classification	
Acute Tox. 4 - H312	
Skin Irrit. 2 - H315	
Eye Dam. 1 - H318	
Aquatic Chronic 2 - H411	
Poly(oxy-1,2-ethanediyl), a-[2,4,6-tris(1-phenylethyl)phenyl]-w-hydroxy-	≥ 1%
CAS number: 99734-09-5	
Classification	
Aquatic Chronic 3 - H412	

The full text for all hazard statements is displayed in Section 16.

Composition comments All percentages displayed expressed as weight/weight.

Other information Code ID : R506

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	In all cases of doubt, or when symptoms persist, seek medical attention.
Inhalation	Move affected person to fresh air at once. If symptoms persist, seek medical advice.
Ingestion	Rinse mouth. Do NOT induce vomiting. Get medical attention.
Skin contact	Remove contaminated clothing and rinse skin thoroughly with water.

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Eye contact Rinse immediately and as long as possible with plenty of water. Eyelids should be held away from the eyeball to ensure thorough rinsing. Always seek medical advice.

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

Human Health May be fatal if swallowed and enters airways. Harmful if swallowed or if inhaled. Causes serious eye damage. May cause an allergic skin reaction. May cause damage to organs through prolonged or repeated exposure. May cause respiratory irritation. May cause damage to organs (Nervous system).

General information May cause a transient itching and/or burning sensation in exposed human skin. Synthetic pyrethroids can produce paresthesia. Typically, symptoms begin several hours after cutaneous exposure, peaks within 12 hours and resolves within about 24 hours.

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

Notes for the doctor Symptomatic treatment is advised.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards In case of fire: Thermal decomposition may evolve toxic and irritant vapours.

5.3. Advice for firefighters

Protective actions during firefighting Water used to extinguish a fire should not be allowed to enter the drainage system or water courses.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Do not breathe spray. Avoid contact with skin and eyes. Wear protective gloves, safety goggles or face shield, and suitable protective clothing. Remove of ignition sources. Evacuate the danger area.

For emergency responders Do not breathe spray. Avoid contact with skin and eyes. Wear protective gloves (nitrile), safety goggles or face shield, and suitable protective clothing. Remove of ignition sources. Evacuate the danger area or consult an expert.

6.2. Environmental precautions

Environmental precautions Do not allow to escape into sewage system or water courses. Do not wash residues into drains or other waterways.

6.3. Methods and material for containment and cleaning up

Containment of a spill Do not allow to escape into sewage system or water courses.

Methods for cleaning up In case of spill (liquid) soak it up immediately with suitable absorbent, such as sawdust or granular absorbent clay. Sweep up and place into sealable containers. Dig up heavily contaminated soil and place into drums. Use a damp cloth to clean floors and other objects, and also place in sealable container. Dispose of all waste and contaminated clothing in the same manner as waste chemicals (i.e. via an authorized disposal facility). Do not wash residues into drains or other waterways.

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6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Fire and explosion prevention Keep away from sources of ignition - No smoking. Prevent electrostatic discharges. Above the flash point, an explosive mixture can be formed (in presence of a flame).

Usage precautions Follow precautions for safe handling described in this safety data sheet.
Avoid spilling.
Do not allow to escape into sewage system or water courses.

Advice on general occupational hygiene Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry and cool place. Keep container in a well-ventilated place. Keep away from food, drink and animal feeding stuffs.

Other information Do not mix with water (except for the normal preparation).
Store away from incompatible materials (see Section 10).

7.3. Specific end use(s)

Specific end use(s) See label on the container.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

According to local regulations.

No chemical safety report is required for this kind of product.

(S)-.alpha.-Cyano-3-phenoxybenzyl (S)-2-(4-chlorophenyl)-3- methylbutyrate

According to local regulations.

No chemical safety report is required for this kind of product.

8.2. Exposure controls

Appropriate engineering controls Provide adequate ventilation.

Eye/face protection Wear safety goggles or face shield.

Hand protection Wear protective gloves made of the following material: Nitrile rubber.

Other skin and body protection Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures Wash contaminated clothing before reuse.

Respiratory protection The usual precautions for handling chemicals should be observed.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Name Esfenvalerate, 50 g/l emulsifiable concentrate (Code ID : R506)

Appearance Clear liquid. (Visual assessment)

Colour Translucent pale yellow. (Visual assessment)

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Odour	Chemical odour. (Olfactory assessment)
Odour threshold	Not determined.
pH	pH (diluted solution): 5.82 (1%) @ 20°C (CIPAC MT 75.3)
Melting point	Not determined.
Initial boiling point and range	Not determined.
Flash point	28.5°C Closed cup. (EEC A.9, CIPAC MT 12.2)
Evaporation rate	Not determined.
Flammability (solid, gas)	Not determined.
Upper/lower flammability or explosive limits	Not determined.
Vapour pressure	Not determined.
Vapour density	Not determined.
Relative density	0.90 g/ml @ 20°C (EEC A.3)
Bulk density	Not applicable.
Solubility(ies)	Emulsifiable in water. (Esfenvalerate : Solubility : < 0.001 mg/l water @ 20°C (EEC A.6))
Solubility in other solvents	Not applicable.
Partition coefficient	Not determined. (Esfenvalerate : log Pow: 6.24 @ 25°C (Pure substance) (OECD 107))
Auto-ignition temperature	494°C (EEC A.15)
Decomposition Temperature	Not determined. (Esfenvalerate : Decomposition occurs at 355.97°C (boiling point))
Viscosity	Dynamic viscosity: Not determined. 1.2862 mm ² /s, Kinematic viscosity @ 20°C 0.9321 mm ² /s, Kinematic viscosity @ 40°C (ASTM method D445-53T based on OECD 114)
Explosive properties	Not explosive. Expert judgement.
Oxidising properties	Not oxidising. Expert judgement.

9.2. Other information

Relative vapour density (air = 1) Not determined.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Stable under recommended storage and handling conditions. See also section 7.

10.2. Chemical stability

Stability Stable for a minimum of 2 years under recommended storage and handling conditions. See section 7.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None known.

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10.4. Conditions to avoid

Conditions to avoid Avoid high temperature, light, humidity. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials

Materials to avoid Alkaline materials.

10.6. Hazardous decomposition products

Hazardous decomposition products In case of fire: Thermal decomposition may evolve toxic and irritant vapours. See also section 5.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Name Esfenvalerate, 50 g/l emulsifiable concentrate (Code ID : R506)

Acute toxicity - oral

Acute toxicity oral LD₅₀ 399 mg/kg, Oral, Rat (OECD 401)

Acute toxicity - dermal

Acute toxicity dermal LD₅₀ > 2000 mg/kg, Dermal, Rat (OECD 402)

Acute toxicity - inhalation

Acute toxicity inhalation LC₅₀, 4 hours: 2.6 mg/l, whole body, Inhalation, Rat (OECD 403)

Skin corrosion/irritation

Skin corrosion/irritation Mildly irritating. (OECD 404)

Serious eye damage/irritation

Serious eye damage/irritation Severe irritant. (OECD 405)

Skin sensitisation

Skin sensitisation Guinea pig maximization test (GPMT) - Guinea pig: Sensitising. (OECD 406)

General information

Based on the available data of the ingredients, the classification criteria are met for the following classes : acute toxicity. skin sensitisation. eye irritation. aspiration hazard. STOT SE. STOT RE.

Route of exposure

This product is for agricultural use; therefore the most probable routes of exposure are via skin or inhalation.

Toxicological information on ingredients.

(S)-.alpha.-Cyano-3-phenoxybenzyl (S)-2-(4-chlorophenyl)-3- methylbutyrate

Name esfenvalerate, technical grade

Acute toxicity - oral

Acute toxicity oral LD₅₀ 88.5 mg/kg, Oral, Rat (OECD 401)

Acute toxicity - dermal

Acute toxicity dermal LD₅₀ > 5000 mg/kg, Dermal, Rat (OECD 402)

Acute toxicity - inhalation

Acute toxicity inhalation LC₅₀, 4 hours: 0.48 mg/l, whole body, Inhalation, male, Rat
LC₅₀, 4 hours: 0.57 mg/l, whole body, Inhalation, female, Rat
(OECD 403)

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Skin corrosion/irritation

Skin corrosion/irritation Weakly irritating. (OECD 404)

Serious eye damage/irritation

Serious eye damage/irritation Mildly irritating. (OECD 405)

Skin sensitisation

Skin sensitisation Guinea pig maximization test (GPMT) - Guinea pig: Sensitising. (OECD 406)

Germ cell mutagenicity

Genotoxicity - in vitro Negative. (in house method)

Genotoxicity - in vivo Negative. (in house method)

Carcinogenicity

Carcinogenicity (rats, mice) : No carcinogenic effect. (OECD 451)

Reproductive toxicity

Reproductive toxicity - fertility Multi-generation study: Negative., Oral, Rat (OECD 416)

Reproductive toxicity - development Teratogenicity: Negative., Oral, Rat, Rabbit (US EPA 83-3)

Acute Neurotoxicity NOAEL 1.9 mg/kg, male, Rat
NOAEL 1.75 mg/kg, female, Rat
(OPPTS 870.6200)

90d-neurotoxicity NOAEL 3.0 mg/kg bw/day, Oral, Rat (OECD 424, US EPA)

General information Based on the available data of the ingredients, the classification criteria are met for the following classes :
acute toxicity.
skin sensitisation.
STOT RE.
STOT SE.

Route of exposure This product is for agricultural use; therefore the most probable routes of exposure are via skin or inhalation.

SECTION 12: Ecological information

12.1. Toxicity

Name Esfenvalerate, 50 g/l emulsifiable concentrate (Code ID : R506)

Acute aquatic toxicity

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 3.4 µg/l, Daphnia magna (OECD 202)

Acute toxicity - fish LC₅₀, 96 hours: 4.5 µg/l, Oncorhynchus mykiss (Rainbow trout) (OECD 203)

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Acute toxicity - algae	EC _{b50} , 96 hours: 0.1037 mg/l, Scenedesmus subspicatus EC _{r50} , 24-48 hours: 0.1640 mg/l, Scenedesmus subspicatus EC _{y50} , 24-48 hours: 0.0970 mg/l, Scenedesmus subspicatus NOEC, 48 hours: 0.0474 µg/l, mg/l, Scenedesmus subspicatus (OECD 201)
Acute toxicity - terrestrial	LD ₅₀ , 48 hours, oral: 0.37 µg a.s/bee, Apis Mellifera (Honeybee) (OECD 213) LD ₅₀ , 48 hours, contact: 0.10 µg a.s/bee, Apis Mellifera (Honeybee) (OECD 214) No significant impact on carbon mineralization or nitrogen transformation at up to 1278 g a.s/ha, Soil micro-organisms (BBA guideline)
<u>Chronic aquatic toxicity</u>	
Chronic toxicity - fish	NOEC, 21 days: 0.18 µg/l, Oncorhynchus mykiss (Rainbow trout) (OECD 204)
Chronic toxicity - aquatic invertebrates	Reproduction test, NOEC, 21 days: 0.056 µg/l, Daphnia magna (OECD 202)
Chronic toxicity - terrestrial	NOEC, 56 days: 20.8 mg/kg, Eisenia Fetida (Earthworm)

Ecological information on ingredients.

(S)-.alpha.-Cyano-3-phenoxybenzyl (S)-2-(4-chlorophenyl)-3- methylbutyrate

Name	esfenvalerate, technical grade
<u>Acute aquatic toxicity</u>	
LE(C)₅₀	0.00001 < L(E)C ₅₀ ≤ 0.0001
M factor (Acute)	10000
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 27 µg/l, Daphnia magna (OECD 202)
Acute toxicity - fish	LC ₅₀ , 96 hours: 0.1 µg/l, Oncorhynchus mykiss (Rainbow trout) (OECD 203) LC ₅₀ , 96 hours: 0.205 µg/l, Lepomis macrochirus (Bluegill) (OECD 203)
Acute toxicity - algae	EC _{b50} , 96 hours: 6.5 µg/l, Scenedesmus subspicatus EC _{r50} , 24-48 hours: 10 µg/l, Scenedesmus subspicatus NOEC, 96 hours: 1.0 µg/l, Scenedesmus subspicatus (OECD 201)
Acute toxicity - microorganisms	EC ₅₀ , 3 hours: > 1000 mg/l, Activated sludge (OECD 209)

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Acute toxicity - terrestrial	LC ₅₀ , single dose oral: > 2250 mg/kg bw, Anas Platyrhynchos (Mallard duck) (FIFRA 71-1)
	LC ₅₀ , single dose oral: 1312 mg/kg bw, Colinus Virginianus (Bobwhite Quail) (FIFRA 71-1)
	LD ₅₀ , 48 hours, contact: 0.06 µg/bee, Apis Mellifera (Honeybee) (in house method)
	No significant impact on carbon mineralization or nitrogen transformation at up to 0.4 Soil micro-organisms, mg/kg dry soil (BBA guideline)
	Esfenvalerate, 50 g/l emulsifiable concentrate (Code ID : R506)
	LC ₅₀ , 14 days: 10.6 mg/kg soil, Eisenia Fetida (Earthworm) (OECD 207)

Chronic aquatic toxicity

NOEC	0.0000001 < NOEC ≤ 0.000001
Degradability	Non-rapidly degradable
M factor (Chronic)	100000
Chronic toxicity - fish	NOEC, 21 days: 0.001 µg/l, Oncorhynchus mykiss (Rainbow trout) (OECD 204)
Chronic toxicity - aquatic invertebrates	NOEC, 21 days: 0.052 µg/l, Daphnia magna (EPA /600/4-85/013) NOEC, 28 days: 0.160 µg/l, Chironomus riparius (Sediment dwelling midge) (BBA guideline)

12.2. Persistence and degradability

Ecological information on ingredients.

(S)-.alpha.-Cyano-3-phenoxybenzyl (S)-2-(4-chlorophenyl)-3- methylbutyrate

Name	esfenvalerate, technical grade
Stability (hydrolysis)	pH4: stable pH7 - DT ₅₀ : 427.7 days @ 20°C pH9 - DT ₅₀ : 5.3 days @ 20°C (OECD 111)
Biodegradation	Not readily biodegradable.

12.3. Bioaccumulative potential

Name	Esfenvalerate, 50 g/l emulsifiable concentrate (Code ID : R506)
Partition coefficient	Not determined. (Esfenvalerate : log Pow: 6.24 @ 25°C (Pure substance) (OECD 107))

Ecological information on ingredients.

(S)-.alpha.-Cyano-3-phenoxybenzyl (S)-2-(4-chlorophenyl)-3- methylbutyrate

Name	esfenvalerate, technical grade
Bioaccumulative potential	BCF, Exposure 28 days: 3110, Cyprinus carpio (Common carp) CT50, depuration time: 7.9 days, Cyprinus carpio (Common carp)
Partition coefficient	log Pow: 6.24 @ 25°C (Pure substance) (OECD 107)

12.4. Mobility in soil

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Name	Esfenvalerate, 50 g/l emulsifiable concentrate (Code ID : R506)
Surface tension	25.4 mN/m @ 25°C (Neat test item) 23.8 mN/m @ 40°C (Neat test item) (equivalent to EEC A.5)

Ecological information on ingredients.

(S)-.alpha.-Cyano-3-phenoxybenzyl (S)-2-(4-chlorophenyl)-3- methylbutyrate

Name	esfenvalerate, technical grade
Mobility	Immobile.
Adsorption/desorption coefficient	Soil - Koc, Adsorption: 85 700 - 596 200 @ 20-25°C (OECD 106)
Surface tension	Not applicable.

12.5. Results of PBT and vPvB assessment

Ecological information on ingredients.

(S)-.alpha.-Cyano-3-phenoxybenzyl (S)-2-(4-chlorophenyl)-3- methylbutyrate

Name	esfenvalerate, technical grade
Results of PBT and vPvB assessment	Not required. (no chemical safety report required)

12.6. Other adverse effects

Ecological information on ingredients.

(S)-.alpha.-Cyano-3-phenoxybenzyl (S)-2-(4-chlorophenyl)-3- methylbutyrate

Name	esfenvalerate, technical grade
Other adverse effects	No other known adverse effects on the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods	According to local regulations. For further advice, contact manufacturer.
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SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID)	1993
UN No. (IMDG)	1993
UN No. (ICAO)	1993

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	FLAMMABLE LIQUID, N.O.S. (xylene)
Proper shipping name (IMDG)	FLAMMABLE LIQUID, N.O.S. (xylene)
Proper shipping name (ICAO)	FLAMMABLE LIQUID, N.O.S. (xylene)

14.3. Transport hazard class(es)

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ADR/RID class	3
ADR/RID label	3
IMDG class	3
ICAO class/division	3

14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

No other special precaution required.

EmS F-E, S-E

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78
and the IBC Code

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation There is no specific regulation/legislation for this mixture.

15.2. Chemical safety assessment

No chemical safety assessment is required for this mixture.

SECTION 16: Other information

Method for evaluating information referred to in Article 9 of regulation (EC) No. 1272/2008 used for the purpose of classification Classification based on : tests , properties of the active substance(s) , ingredients .

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Classification abbreviations and acronyms

Acute Tox. = Acute toxicity
Aquatic Acute = Hazardous to the aquatic environment (acute)
Aquatic Chronic = Hazardous to the aquatic environment (chronic)
Asp. Tox. = Aspiration hazard
Eye Dam. = Serious eye damage
Eye Irrit. = Eye irritation
Flam. Liq. = Flammable liquid
Skin Sens. = Skin sensitisation
Skin Irrit. = Skin irritation
STOT RE = Specific target organ toxicity-repeated exposure
STOT SE = Specific target organ toxicity-single exposure
Repr. = Reproductive toxicity

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Abbreviations and acronyms used in the safety data sheet

ASTM : American Society for Testing Material
 CAS: Chemical Abstracts Service.
 CFR : Code of Federal Regulations
 CLP : Classification, Labelling and Packaging
 EC : European Community
 EEC : European Economic Community
 EPA : Environmental Protection Agency (USA)
 EPPO : European and Mediterranean Plant Protection Organization
 EU : European Union
 GIFAP : International Group of National Associations of manufacturers of Agrochemical Products
 GHS: Globally Harmonized System.
 ID : identification
 i.e. : shortening of the Latin expression id est, which is translated as "that is."
 OECD : Organisation for Economic Co-operation and Development
 PBT: Persistent, Bioaccumulative and Toxic substance.
 REACH: The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020 No. 1577.
 Regl : Regulation
 US EPA : United States Environmental Protection Agency
 vPvB: Very Persistent and Very Bioaccumulative.
 w/w : weight per weight
 FIFRA : Federal Insecticide, Fungicide and Rodenticide Act of 1972
 LD50: Lethal Dose to 50% of a test population (Median Lethal Dose).
 LC50: Lethal Concentration to 50 % of a test population.
 EC₅₀: 50% of maximal Effective Concentration.
 NOEC: No Observed Effect Concentration.
 NOAEL: No Observed Adverse Effect Level.
 ECb50 : 50% of maximal Effective Concentration on biomass.
 NOECb : No Observed Effect Concentration on biomass.
 EC50fd : 50% of maximal Effective Concentration on frond density.
 NOECfd : No Observed Effect Concentration on frond density.
 DT₅₀ : degradation time for 50% of a compound
 log Pow : Octanol-water partition coefficient.
 Koc : organic carbon adsorption coefficient
 BCF: Bioconcentration Factor.
 UN: United Nations.
 No. : number
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
 RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
 IMDG: International Maritime Dangerous Goods.
 ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.
 N.O.S. : Not Otherwise Specified
 EmS : Emergency Response Procedures for Ships Carrying Dangerous Goods
 MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.
 IBC: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (International Bulk Chemical Code).
 SDS : Safety Sata Sheet
 CT50 : clearance time
 ECr&b50 : 50% of maximal Effective Concentration on growth rate and biomass.
 ECr50 : 50% of maximal Effective Concentration on growth rate.
 NOECr : No Observed Effect Concentration on growth rate.
 NOECr&b : No Observed Effect Concentration on growth rate and biomass.
 Vol. = volume

Esfenvalerate 5 EC

CIPAC : Collaborative International Pesticides Analytical Council

USP : United States Pharmacopeia

SETAC: Society of Environmental Toxicology And Chemistry

OPPTS : Office of Prevention, Pesticides & Toxic Substances

a.s. : active substance

bw: bodyweight

MAFF : Ministry of Agriculture, Forestry and Fisheries (Japan)

ISO : International Organization for Standardization

v/v : volume per volume

w/v : weight per volume

BBA : Biologische Bundes Ansladt für Land und Fortwirtschadt (German Federal Biological Research Centre for Agriculture and Forestry)

subsp. = subspecies

cfu : colony-forming unit

EC : Emulsifiable concentrate

Revision comments

Sections were modified as follows : update of classification .

NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date

11/03/2022

Revision

5.60

Revision number of the previous version

5.50

Supersedes date

17/10/2019

SDS number

20706

Hazard statements in full

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H301 Toxic if swallowed.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

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.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H361d Suspected of damaging the unborn child.

H370 Causes damage to organs (Nervous system).

H371 May cause damage to organs (Nervous system).

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

Reference of the SDS

SA5ECsxR506EU/560gb

This information only concerns the above mentioned product for the specific use mentioned and is not valid for such product used in combination with any other product. The information is to our best knowledge correct and complete and is given in good faith as of the date indicated. It is the user's responsibility to use this information as appropriate for his own particular use of this product.