



# SUMITOMO CHEMICAL (U.K.) PLC

## SAFETY DATA SHEET GOCHA®

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

#### 1.1. Product identifier

**Product name** GOCHA®  
**Name** Esfenvalerate, 25 g/l emulsifiable concentrate  
**GIFAP Code** EC  
**Synonyms; trade names**

#### 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 (UK) Plc  
 Hythe House  
 200 Shepherds Bush Road  
 Hammersmith  
 London  
 W6 7NL  
[regulatory@scuk.sumitomo-chem.co.uk](mailto:regulatory@scuk.sumitomo-chem.co.uk)  
 +44 (0)203 538 3099

#### 1.4. Emergency telephone number

**Emergency telephone** +44 (0)1235 239670 (EU)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (EC 1272/2008)

**Physical hazards** Flam. Liq. 3 - H226  
**Health hazards** Acute Tox. 4 - H302 Acute Tox. 4 - H332 Eye Dam. 1 - H318 Skin Sens. 1 - H317  
 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

##### Pictogram



**Signal word**

Danger

**Hazard statements**

H226 Flammable liquid and vapour

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H302+H332 Harmful if swallowed or if inhaled  
 H304 May be fatal if swallowed and enters airways  
 H317 May cause an allergic skin reaction  
 H318 Causes serious eye damage  
 H335 May cause respiratory irritation  
 H373 May cause damage to organs through prolonged or repeated exposure  
 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.  
 P260: Do not breathe fume/gas/mist/vapours/spray.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTRE/ doctor.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
 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.  
 P331 Do NOT induce vomiting.  
 P405 Store locked up.  
 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.

**Supplemental label information**

EUH 401: To avoid risks to human health and the environment, comply with the instructions for use.

**Special risks and safety precautions  
 (Commission Regulation (EU)  
 547/2011):**

**General provisions**

SP 1: 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 5 metres 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**

Classification according to  
 Regl 1272/2008

**ETHYLBENZENE****≥ 20%**

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

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STOT RE 2 - H373  
Asp. Tox. 1 - H304

**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

**2-PHENOXYETHANOL****≥ 1 - < 10%**

CAS number: 122-99-6

EC number: 204-589-7

**Classification**

Acute Tox. 4 - H302  
Eye Irrit. 2 - H319

**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

**(S)-.alpha.-Cyano-3-phenoxybenzyl (S)-2-(4-chlorophenyl)-  
3-methylbutyrate****2.81%**

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  
Aquatic Acute 1 - H400  
Aquatic Chronic 1 - H410

**Polyoxyethylene tristyrylphenyl ether****≥ 1%**

CAS number: 99734-09-5

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Aquatic Chronic 3 - H412

**TOLUENE****≥ 1 - < 3%**

CAS number: 108-88-3

EC number: 203-625-9

**Classification**

Flam. Liq. 2 - H225

Skin Irrit. 2 - H315

Repr. 2 - H361d

STOT SE 3 - H336

STOT RE 2 - H373

Asp. Tox. 1 - H304

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 : R707

**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. Wash skin thoroughly with water.

**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**

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

**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, peak within 12 hours and resolve 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 (CO<sub>2</sub>). Sand. Foam.**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 irritating 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 watercourses.

**Special protective equipment for firefighters**

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

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## SECTION 6: Accidental release measures

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

<b>For non-emergency personnel</b>	Do not breathe spray. Avoid contact with skin and eyes. Wear protective gloves, safety goggles or face shield, and suitable protective clothing. Remove ignition sources. Evacuate the danger area.
<b>For emergency responders</b>	Do not breathe spray. Avoid contact with skin and eyes. Wear protective nitrile gloves, safety goggles or face shield, and suitable protective clothing. Remove ignition sources. Evacuate the danger area or consult an expert.

### 6.2. Environmental precautions

<b>Environmental precautions</b>	Do not allow escape into sewage system or watercourses. Do not wash residues into drains or other waterways.
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### 6.3. Methods and material for containment and cleaning up

<b>Containment of a spill</b>	Do not allow escape into sewage system or watercourses.
<b>Methods for cleaning up</b>	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.

### 6.4. Reference to other sections

<b>Reference to other sections</b>	For personal protection see section 8.
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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

<b>Fire and explosion prevention</b>	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).
<b>Usage precautions</b>	Follow precautions for safe handling described in this safety data sheet. Avoid spilling. Do not allow to escape into sewage system or water courses.
<b>Advice on general occupational hygiene</b>	Do not eat, drink or smoke when using this product.

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

<b>Storage precautions</b>	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 feedingstuffs.
<b>Other information</b>	Do not mix with water (except for the normal preparation). Store away from incompatible materials (see Section 10).

### 7.3. Specific end use(s)

<b>Specific end use(s)</b>	See label on the container.
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## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

The following exposure limit(s) apply for:

<b>Xylene</b>	WEL-TWA (UK)	220 mg/m <sup>3</sup>	Can be absorbed through skin
	WEL-STEL (UK)	441 mg/m <sup>3</sup>	Can be absorbed through skin
<b>Ethylbenzene</b>	WEL-TWA (UK)	441 mg/m <sup>3</sup>	Can be absorbed through skin
	WEL-STEL (UK)	552 mg/m <sup>3</sup>	Can be absorbed through skin
<b>Toluene</b>	WEL-TWA (UK)	191 mg/m <sup>3</sup>	Can be absorbed through skin
	WEL-STEL (UK)	384 mg/m <sup>3</sup>	Can be absorbed through skin

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

### 8.2. Exposure controls

<b>Appropriate engineering controls</b>	Provide adequate ventilation.
<b>Eye/face protection</b>	Wear safety goggles or face shield.
<b>Hand protection</b>	Wear protective nitrile gloves.

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<b>Other skin and body protection</b>	Wear appropriate clothing to prevent any possibility of skin contact.
<b>Hygiene measures</b>	Wash contaminated clothing before reuse.
<b>Respiratory protection</b>	The usual precautions for handling chemicals should be observed.

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

<b>Name</b>	Esfenvalerate, 25 g/l emulsifiable concentrate (Code ID: R707)
<b>Appearance</b>	Clear liquid (Visual inspection)
<b>Colour</b>	Clear yellow (Visual inspection)
<b>Odour</b>	Solvent (Olfactory assessment)
<b>Odour threshold</b>	Not determined
<b>pH</b>	pH (diluted solution): 7.20 (1%) @ 21°C (CIPAC MT 75)
<b>Melting point</b>	Not applicable
<b>Initial boiling point and range</b>	Not determined
<b>Flash point</b>	26.8°C Closed cup. (EEC A.9)
<b>Evaporation rate</b>	Not applicable
<b>Flammability (solid, gas)</b>	Flammable. (based on flash point)
<b>Upper/lower flammability or explosive limits</b>	Not determined
<b>Vapour pressure</b>	Not determined
<b>Vapour density</b>	Not applicable
<b>Relative density</b>	0.89 g/ml @ 20°C (EEC A3)
<b>Bulk density</b>	Not applicable
<b>Solubility(ies)</b>	Emulsifiable in water (Esfenvalerate: Solubility <0.001 mg/l water @20°C (EEC A.6))
<b>Solubility in other solvents</b>	Not applicable
<b>Partition coefficient</b>	Not determined (Esfenvalerate: log Pow; 6.24 @25°C (pure substance) OECD 107))
<b>Auto-ignition temperature</b>	476°C (EEC A.15)
<b>Decomposition temperature</b>	Not determined. (Esfenvalerate: Decomposition occurs at 356°C (boiling point))
<b>Viscosity</b>	Dynamic viscosity: Not determined 1.1353 mm <sup>2</sup> /s, Kinematic viscosity @ 20°C 0.8835 mm <sup>2</sup> /s, Kinematic viscosity @ 40°C (ASTM D445, based on OECD 114)
<b>Explosive properties</b>	Vapours may form explosive mixtures with air (xylene) Not explosive. Expert judgement.
<b>Oxidising properties</b>	Not oxidising. Expert judgement.

**9.2. Other information**

<b>Relative vapour density (air = 1)</b>	Not determined
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**SECTION 10: Stability and reactivity****10.1. Reactivity**

<b>Reactivity</b>	Stable under recommended storage and handling conditions. See also section 7.
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**10.2. Chemical stability**

<b>Stability</b>	Stable for a minimum of 2 years under recommended storage and handling conditions. See section 7.
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**10.3. Possibility of hazardous reactions**

<b>Possibility of hazardous reactions</b>	None known.
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**10.4. Conditions to avoid**

<b>Conditions to avoid</b>	Avoid high temperature, light, humidity. Keep away from sources of ignition. No smoking.
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**GOCHA®****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**

<b>Name</b>	Esfenvalerate, 25 g/l emulsifiable concentrate (Code ID: R707)
<b><u>Acute toxicity - oral</u></b>	
<b>Acute toxicity - oral</b>	LD <sub>50</sub> 436 mg/kg, Oral, Rat (OECD 401)
<b><u>Acute toxicity - dermal</u></b>	
<b>Acute toxicity - dermal</b>	LD <sub>50</sub> >2000 mg/kg, Dermal, Rat (OECD 402)
<b><u>Acute toxicity - inhalation</u></b>	
<b>Acute toxicity - inhalation</b>	LC <sub>50</sub> , 4 hours: 4.8 mg/l, whole body, Inhalation, Rat (OECD 403)
<b><u>Skin corrosion/irritation</u></b>	
<b>Skin corrosion/irritation</b>	Moderately irritating. (EPA 81-5)
<b><u>Serious eye damage/irritation</u></b>	
<b>Serious eye damage/irritation</b>	Severe irritant. (OECD 405)
<b><u>Skin sensitisation</u></b>	
<b>Skin sensitisation</b>	Guinea pig maximization test (GPMT) - Guinea pig: Sensitising. (OECD 406)
<b>General information</b>	Based on the available data of these ingredients, the classification criteria are met for the following classes: Acute toxicity. Skin sensitisation. Serious eye damage. Aspiration hazard. STOT RE. STOT SE.
<b>Route of exposure</b>	This product is for agricultural use; therefore, the most probable routes of exposure are via skin or inhalation.

**Toxicological information in ingredients**

<b>Name</b>	Esfenvalerate, technical grade
<b><u>Acute toxicity - oral</u></b>	
<b>Acute toxicity - oral</b>	LD <sub>50</sub> 88.5 mg/kg, Oral, Rat (OECD 401)
<b><u>Acute toxicity - dermal</u></b>	
<b>Acute toxicity - dermal</b>	LD <sub>50</sub> >5000 mg/kg, Dermal, Rat (OECD 402)
<b><u>Acute toxicity - inhalation</u></b>	
<b>Acute toxicity - inhalation</b>	LC <sub>50</sub> , 4 hours: 0.48 mg/l, whole body, Inhalation, male, Rat LC <sub>50</sub> , 4 hours: 0.57 mg/l, whole body, Inhalation, female, Rat (OECD 403)
<b><u>Skin corrosion/irritation</u></b>	
<b>Skin corrosion/irritation</b>	Weakly irritating. (OECD 404)
<b><u>Serious eye damage/irritation</u></b>	
<b>Serious eye damage/irritation</b>	Mildly irritating. (OECD 405)
<b><u>Skin sensitisation</u></b>	
<b>Skin sensitisation</b>	Guinea pig maximization test (GPMT) - Guinea pig: Sensitising. (OECD 406)
<b><u>Germ cell mutagenicity</u></b>	
<b>Genotoxicity – in vitro</b>	Negative. (in house method)
<b>Genotoxicity – in vivo</b>	Negative. (in house method)
<b><u>Carcinogenicity</u></b>	
<b>Carcinogenicity</b>	(rats, mice): No carcinogenic effect. (OECD 451)
<b><u>Reproductive toxicity</u></b>	
<b>Reproductive toxicity - fertility</b>	Multigeneration study: Negative. Oral, Rat (OECD 416)
<b>Reproductive toxicity -</b>	Teratogenicity: Negative. Oral, Rat, Rabbit (US EPA 83-3)

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<b>Acute neurotoxicity</b>	NOAEL 1.9 mg/kg, male, Rat NOAEL 1.75 mg/kg, female, Rat (OPPTS 870.6200)
<b>90d neurotoxicity</b>	NOAEL 3.0 mg/kg bw/day, Oral, Rat (OECD 424, US EPA)
<b>General information</b>	Based on the available data of these ingredients, the classification criteria are met for the following classes: acute toxicity. skin sensitisation.
<b>Route of exposure</b>	This product is for agricultural use, therefore the most probable routes of exposure are via skin or inhalation.

**SECTION 12: Ecological information**

<b>Ecotoxicity</b>	No experimental ecological data are available on the preparation as such
<b>12.1. Toxicity</b>	
<b>Name</b>	Esfenvalerate, 50 g/l emulsifiable concentrate (Code ID: R506) (close formulation)
<b>Acute aquatic toxicity</b>	
<b>Acute toxicity - fish</b>	LC <sub>50</sub> 96 hours: 4.5 µg/l, <i>Oncorhynchus mykiss</i> (Rainbow trout) (OECD 203)
<b>Acute toxicity - aquatic invertebrates</b>	EC <sub>50</sub> 48 hours: 3.4 µg/l, <i>Daphnia magna</i> (OECD 202)
<b>Acute toxicity - algae</b>	ECb <sub>50</sub> 96 hours: 135 µg/l, <i>Scenedesmus subspicatus</i> ECr <sub>50</sub> 24-48 hours: 215 µg/l, <i>Scenedesmus subspicatus</i> NOEC 24-48 hours: 0.05 mg/l, <i>Scenedesmus subspicatus</i> (OECD 201)
<b>Acute toxicity - terrestrial</b>	
<b>Acute toxicity - terrestrial</b>	LD <sub>50</sub> 48 hours, oral: 0.21 µg a.s./bee, <i>Apis mellifera</i> (Honeybee) (BBA guideline VI, 23-1) LD <sub>50</sub> 48 hours, contact: 0.07 µg a.s./bee, <i>Apis mellifera</i> (Honeybee) (BBA guideline VI, 23-1) LC <sub>50</sub> , 14 days: 212.5 mg/kg soil, <i>Eisenia foetida</i> (Earthworm) (OECD 207)
<b>Chronic aquatic toxicity</b>	
<b>Chronic toxicity - fish</b>	NOEC, 21 days: 0.18 µg/l, <i>Oncorhynchus mykiss</i> (Rainbow trout) (OECD 204)
<b>Chronic toxicity - aquatic invertebrates</b>	Reproduction test, NOEC, 21 days: 0.056 µg/l, <i>Daphnia magna</i> (OECD 202)
<b>Ecological information in ingredients</b>	
<b>Name</b>	Esfenvalerate, technical grade
<b>Acute aquatic toxicity</b>	
<b>L(E)C<sub>50</sub></b>	0.00001 < L(E)C <sub>50</sub> ≤ 0.0001
<b>M Factor (acute)</b>	10000
<b>Acute toxicity – fish</b>	LC <sub>50</sub> 96 hours: 0.1 µg/l, <i>Oncorhynchus mykiss</i> (Rainbow trout) (OECD 203) LC <sub>50</sub> 96 hours: 0.205 µg/l, <i>Lepomis macrochirus</i> (Bluegill) (OECD 203)
<b>Acute toxicity – aquatic invertebrates</b>	EC <sub>50</sub> 48 hours: 27 µg/l, <i>Daphnia magna</i> (OECD 202)
<b>Acute toxicity – algae</b>	ECb <sub>50</sub> 96 hours: 6.5 µg/l, <i>Scenedesmus subspicatus</i> ECr <sub>50</sub> 24-48 hours: 10 µg/l, <i>Scenedesmus subspicatus</i> NOEC 96 hours: 1.0 µg/l, <i>Scenedesmus subspicatus</i> (OECD 201)
<b>Acute toxicity - microorganisms</b>	
<b>Acute toxicity - microorganisms</b>	EC <sub>50</sub> 3 hours: > 1000 mg/l, Activated sludge (OECD 209)
<b>Acute toxicity - terrestrial</b>	
<b>Acute toxicity - terrestrial</b>	LC <sub>50</sub> , single dose oral: > 2250 mg/kg bw, <i>Anas platyrhynchos</i> (Mallard duck) (FIFRA 71-1) LC <sub>50</sub> , single dose oral: 1312 mg/kg bw, <i>Colinus virginianus</i> (Bobwhite quail) (FIFRA 71-1) LD <sub>50</sub> 48 hours, contact: 0.06 µg/bee, <i>Apis mellifera</i> (Honeybee) (in house method) No significant impact on carbon mineralisation or nitrogen transformation at up to 0.4 mg/kg dry soil, Soil micro-organisms (BBA guideline)
	Esfenvalerate, 50 g/l emulsifiable concentrate (Code ID: R506) LC <sub>50</sub> , 14 days: 10.6 mg/kg dry soil, <i>Eisenia foetida</i> (Earthworm) (OECD 207)



**GOCHA®****Chronic aquatic toxicity**

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

**12.2. Persistence and degradability****Ecological information in ingredients**

<b>Name</b>	Esfenvalerate, technical grade
<b>Biodegradation</b>	Not readily biodegradable
<b>Stability (hydrolysis)</b>	pH4: stable pH7 - DT <sub>50</sub> : 427.7 days @ 20°C pH9 - DT <sub>50</sub> : 5.3 days @ 20°C (OECD 111)

**12.3. Bioaccumulative potential**

<b>Name</b>	Esfenvalerate, 25 g/l emulsifiable concentrate (Code ID: R707)
<b>Partition coefficient</b>	Not determined (Esfenvalerate: log Pow; 6.24 @25°C (pure substance) OECD 107))

**Ecological information in ingredients**

<b>Name</b>	Esfenvalerate, technical grade
<b>Bioaccumulative potential</b>	BCF, Exposure 28 days: 3110, <i>Cyprinus carpio</i> (Common carp) (CT50, depuration time: 7.9 days, <i>Cyprinus carpio</i> (Common carp))
<b>Partition coefficient</b>	log Pow; 6.24 @25°C (pure substance) OECD 107)

**12.4. Mobility in soil**

<b>Name</b>	Esfenvalerate, 25 g/l emulsifiable concentrate (Code ID: R707)
<b>Surface tension</b>	28.5 mN/m @ 25°C (equivalent to EEC A.5)

**Ecological information in ingredients**

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

**12.5. Results of PBT and vPvB assessment****Ecological information in ingredients**

<b>Name</b>	Esfenvalerate, technical grade
<b>Results of PBT &amp; vPvB assessment</b>	Not required (no chemical safety report required).

**12.6. Other adverse effects****Ecological information in ingredients**

<b>Name</b>	Esfenvalerate, technical grade
<b>Other adverse effects</b>	No other known adverse effects on the environment.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

<b>Disposal methods</b>	According to local regulations. For further advice, contact manufacturer.
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**SECTION 14: Transport information****14.1. UN Number**

**GOCHA®**

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)**

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 73/78 and the ICB Code**

Transport in bulk according to Annex II of MARPOL 73/78 and the ICB Code Not applicable

**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), close formulation(s), ingredients.

**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

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Eye Irrit. = Eye irritation  
 Flam. Liq. = Flammable liquid  
 Repr. = Reproductive toxicity  
 Skin Irrit. = Skin irritation  
 Skin Sens. = Skin sensitisation  
 STOT RE = Specific target organ toxicity-repeated exposure  
 STOT SE = Specific target organ toxicity-single exposure

**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: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.  
 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  
 LD<sub>50</sub>: Lethal Dose to 50% of a test population (Median Lethal Dose).  
 LC<sub>50</sub>: Lethal Concentration to 50 % of a test population.  
 EC<sub>50</sub>: 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.  
 DT<sub>50</sub> : 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 Data 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.

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Vol. = volume

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, update of classification (ingredients), occupational exposure limits.

**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

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**

Based on SA2.5ECxR707EU/550gb from SCAE

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 present 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.