



SAFETY DATA SHEET

According to Regulation (EC) No 1907/2006 (REACH) and Commission Regulation (EU) No 453/2010

PYRIDALYL 50 EC

Ref. S181250ECCLP/ME/120gb

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Pyridalyl, 500 g/l emulsifiable concentrate
GIFAP Code: EC
EC number: not applicable

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

Insecticide (agricultural use)
Not for public use

1.3. Details of the supplier of the safety data sheet

SUMITOMO CHEMICAL AGRO EUROPE S.A.S.
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2, rue Claude Chappe
69370 Saint-Didier-au-Mont-d’Or
France
Tel.: +33 (0) 478 64 32 60
email: sds@sumitomo-chem.fr



1.4. Emergency Telephone number 24/24hrs

Europe +44 (0) 1235 239 670
Middle East & Africa +44 (0) 1235 239 671

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classified as hazardous according to regulation (EC) No 1272/2008 (CLP)

Signal word(s)

Danger

Pictogram (s)



STOT SE Cat 3



Aspir. haz. Cat 1
STOT RE Cat 2



Aquatic Acute Cat 1
Aquatic Chronic Cat 1

Hazard statement(s)

H304: May be fatal if swallowed and enters airways.
H336: May cause drowsiness or dizziness.
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.

2.2. Label elements

Signal word(s)

Danger

Pictogram (s)



STOT SE Cat 3



Aspir. haz. Cat 1
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Aquatic Chronic Cat 1



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Hazard statement(s)	H304: May be fatal if swallowed and enters airways. H336: May cause drowsiness or dizziness. H373: May cause damage to organs through prolonged or repeated exposure. H410: Very toxic to aquatic life with long lasting effects.
Precautionary statement(s)	P280: Wear protective gloves/protective clothing/eye protection/face protection. P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician P314: Get medical advice/attention if you feel unwell. P331: Do NOT induce vomiting P403 + P233: Store in a well-ventilated place. Keep container tightly closed. P501: Dispose of contents/container in accordance with local regulation. EUH 401: To avoid risks to human health and the environment, comply with the instructions for use. EUH 066: Repeated exposure may cause skin dryness or cracking.
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).
Specific safety precautions	SPo 2: Wash all protective clothing after use SPe 3: To protect aquatic organisms respect an unsprayed buffer zone of (<i>as indicated on the label</i>) to surface water bodies.
2.3. Other hazards	none known

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2. This product is to be considered as a mixture in conformance to EU regulations.

Composition/Information on hazardous ingredients

Number	% w/v	CAS number	Chemical name
1	50	179101-81-6	2,6-dichloro-4-(3,3-dichloroallyloxy)phenyl 3-[5-(trifluoromethyl)-2-pyridyloxy]propyl ether
2	≥20	ND	Hydrocarbons, C10, aromatics, <1% naphthalene
3	>1	26264-06-2	calcium dodecylbenzenesulphonate
4	>1	104-76-7	2-ethylhexan-1-ol
5	<1	91-20-3	Naphthalene

Number	EC number	Annex-1 listing	Regl 1272/2008 Pict.	Hazard statements
1	/	no	GHS07, GHS08, GHS09	H317, H373, H400, H410
2	918-811-1	/	GHS07, GHS08, GHS09	H304, H336, H411, EUH066
3	/	/	GHS07, GHS05	H318, H315
4	/	/	GHS07	H319, H315
5	/	/	GHS07, GHS08, GHS09	H302, H351, H410

Other information SCAE code: N12-2

4. FIRST AID MEASURES

4.1. Description of first aid measures

General	In all cases of doubt, seek medical attention.
Inhalation	Move to fresh air. If symptoms persist, seek medical advice.
Skin	Remove contaminated clothing. Wash skin immediately with water.
Eye	Rinse thoroughly with plenty of water. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical advice if irritation develops.
Ingestion	Rinse mouth. DO NOT induce vomiting. Seek medical advice.

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

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May be fatal if swallowed and enters airways; May cause damage to organs through prolonged or repeated exposure; May cause drowsiness or dizziness; Repeated exposure may cause skin dryness or cracking.

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

Symptomatic treatment is advised.

5. FIRE-FIGHTING MEASURES**5.1. Extinguishing media****Suitable extinguishing media** Dry chemical powder, carbon dioxide, foam, sand.**Unsuitable extinguishing media** Water with full waterjet**5.2. Special hazards arising from the substance or mixture**

May emit toxic and irritating fumes under fire conditions.

5.3. Advice for fire-fighters

Wear self contained breathing apparatus. Wear suitable protective clothing and eye/face protection.

Other information

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

6. ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment, and emergency procedures****For non-emergency personnel**Avoid contact with skin. Wear protective gloves, safety goggles or face shield, and suitable protective clothing.
Remove of ignition sources.
Evacuate the danger area.**For emergency responders**Avoid contact with skin. 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**

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.

Clean-up procedures

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

For personal protection see section 8.

7. HANDLING AND STORAGE**7.1. Precautions for safe handling**

The usual precautions for handling chemicals should be observed. For personal protection see section 8.

Fire and explosion prevention

Prevent electrostatic discharge. Above the flash point an explosive mixture can be formed.

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7.2. Conditions for safe storage, including any incompatibilities**Storage requirements**

Store in a dry and cool place. Keep container in a well-ventilated place. Keep away from food, drink and animal feedingstuffs. Do not drink, eat and smoke in work areas.

Other information

Keep container tightly closed.

Do not mix with water (except for the normal preparation).

7.3. Specific end use(s)

see label on the container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

There is no national exposure limit for this product.

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

8.2. Exposure controls**Appropriate engineering controls**

Provide adequate ventilation.

Individual protection measures**Respiratory**

The usual precautions for handling chemicals should be observed.

Hand

Wear protective gloves of nitrile

Eye

Wear safety goggles or face shield.

Skin and body

Wear suitable protective clothing.

Other information

Launder clothes before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Name	<i>Pyridalyl, 500 g/l emulsifiable concentrate</i>
Appearance	clear liquid (Visual inspection)
Colour	yellow (Visual inspection)
Odour	faint characteristic odour (In-house method)
Odour threshold	not determined
pH value	5.25 (1% emulsion in water) (CIPAC MT 75.1)
Melting point/freezing point	not determined
Initial boiling point & boiling range	not determined
Flash point	66.5°C (CIPAC MT12.2, tag closed tester)
Evaporation rate	not determined
Flammability	not determined
Upper/lower flammability or explosive limits	not determined
Vapour pressure	not determined
Vapour density	not applicable
Relative density	1.113 g/ml (20°C) (CIPAC MT3.1)
Bulk density	not applicable
Solubility in water	dispersible in water (solubility of pyridalyl: 1.5×10^{-7} g/l, 20°C) (US EPA OPPTS 830.7840 – column elution method)
Solubility in other solvents	not applicable
Partition coefficient n-octanol/water	not determined (pyridalyl: log Pow = 8.1, 20°C) (US EPA OPPTS 830.7570)
Autoignition temperature	441°C (ASTM D E659)
Decomposition temperature	the active substance decomposes at about 227 °C before boiling point is reached (OECD 102)
Dynamic Viscosity	14.1 mPa.s (rotational viscometer, 20°C, OECD 114)
Kinematic viscosity	calculated based on dynamic viscosity: 12.668 mm ² /sec, 20°C
Explosive properties	not determined
Oxidising properties	not determined

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9.2. Other information

Relative vapour density (air = 1) not determined
Surface tension not determined

10. STABILITY AND REACTIVITY

- 10.1. Reactivity** Stable under recommended storage and handling conditions (see also section 7).
- 10.2. Chemical stability** Stable for a minimum of 2 years under recommended storage and handling conditions (see section 7).
- 10.3. Possibility of hazardous reactions** None known.
- 10.4. Conditions to avoid** Avoid high temperature, light, humidity.
- 10.5. Incompatible materials** none known.
- 10.6. Hazardous decomposition products** May emit toxic and irritating fumes under fire conditions (see also section 5).

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

No experimental toxicological data are available on the preparation as such. The following data are applicable to a formulation of similar composition:

Name	<i>Pyridalyl, 500 g/l emulsifiable concentrate (code EQ06)</i>
Acute toxicity	
Oral	LD50 rat: >2000 mg/kg (OECD 423)
Dermal	LD50 rat: >2000 mg/kg (OECD 402)
Inhalation	LC50 rat (4 hours): >5.25 mg/l (nose-only exposure) (OECD 403)
Irritation	
Skin	mildly irritating (OECD 404)
Eye	mildly irritating (OECD 405)
Sensitization	not sensitizing (Buehler test) (OECD 406)

The following data are applicable to the ingredient(s) listed below:

Name	<i>Active substance Pyridalyl, technical grade</i>
Other toxicological information	- Genotoxicity, <i>in vitro</i> tests: all tests negative, except chromosome aberration test positive with metabolic activation (OECD 471, 473, 476) <i>in vivo</i> : negative (OECD 474, 486) - Carcinogenicity (rats, mice): no carcinogenic effect (OECD 453, 451) - Multigeneration reproduction study (rat): negative (OECD 416) - Teratogenicity studies (rat, rabbit): negative (OECD 414) - STOT-repeated exposure: lung, liver, adrenals.

Based on the available data, the classification criteria are met for the STOT-RE hazard class.

Information on likely routes of exposure

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

12. ECOLOGICAL INFORMATION

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12.1. Toxicity

No experimental ecological data are available on the preparation as such. The following data are applicable to the ingredient(s) listed below:

Name	Active substance <i>Pyridalyl, technical grade</i>
Fish	Acute toxicity, 96h-LC50 (<i>Oncorhynchus mykiss</i>): 0.50 mg/l (US EPA FIFRA 72-1) Acute toxicity, 96h-LC50 (<i>Lepomis macrochirus</i>): >24 mg/l (US EPA FIFRA 72-1) Chronic toxicity, fish early life stage, 89d-NOEC (<i>Oncorhynchus mykiss</i>): 24 µg/l (OECD 210)
Daphnia	Acute toxicity, 48h-EC50 (<i>Daphnia magna</i>): 0.0038 mg/l (US EPA FIFRA 72-2) Chronic toxicity, 21d-NOEC (<i>Daphnia magna</i>): 1.4 µg/l (OECD 211)
Sediment dwelling midge	Acute toxicity, 48h-LC50 (<i>Chironomus yoshimatsui</i>): 1.1 mg/l (ASTM Standard No. 729) Chronic toxicity, 28d-NOEC (<i>Chironomus riparius</i>): 12 µg/l (OECD 219)
Algae	Acute toxicity: (OECD 201) 72h- EC _r 50 and EC _b 50, (<i>Pseudokirchneriella subcapitata</i>): > 0.14 mg/l 72h – NOEC (<i>Pseudokirchneriella subcapitata</i>): = 0.14 mg/l (OECD 201) 72h- EC _r 50 and EC _b 50, (<i>Selenastrum capricornutum</i>): > 10 mg/l 72h – NOEC (<i>Selenastrum capricornutum</i>): = 10 mg/l 72h- EC _r 50 and EC _b 50, (<i>Navicula pelliculosa</i>): > 0.18 mg/l 72h – NOEC (<i>Navicula pelliculosa</i>): = 0.18 mg/l (OECD 201)
Aquatic plant	Acute toxicity (<i>Lemna gibba</i>): 7d-EC _r 50: > 0.17 mg/l 7d-NOEC: ≥ 0.17 mg/l (US EPA OPPTS 850.4400)
Birds	Acute toxicity, LD50, Bobwhite quail: > 2250 mg/kg bw (US EPA FIFRA 71-1)
Bees	Acute contact toxicity, 48h-LD50 (<i>Apis mellifera</i>): >100 µg/bee (OECD 214) Acute oral toxicity, 48h-LD50 (<i>Apis mellifera</i>): >100 µg/bee (OECD 213)
Earthworms	Acute toxicity, 14d-LC50 (<i>Eisenia foetida</i>): >1000 mg/kg dry soil (OECD 207) Chronic toxicity and reproduction, 56d-NOEC (<i>Eisenia foetida</i>): 63 mg/kg dry soil (ISO/DIS 11268-2)
Soil micro organisms	No significant impact on carbon mineralization or nitrogen transformation at up to 4.0 mg/kg dry soil (OECD 216, 217)

12.2. Persistence and degradability

The following data are applicable to the ingredient(s) listed below:

Name	Active substance <i>Pyridalyl, technical grade</i>
Degradation Biotic	Not readily biodegradable (OECD 301F - manometric respirometry)
Degradation Abiotic	Hydrolysis: stable (US EPA OPPTS 835.2110)
Biological methods for sewage treatment	3h-EC50 activated sludge: > 1000 mg/l (OECD 209)

12.3. Bioaccumulative potential

The following data are applicable to the ingredient(s) listed below:

Name	Active substance <i>Pyridalyl, technical grade</i>
Bioaccumulation	Partition coefficient n-octanol/water log Pow = 8.1 (20°C) (US EPA OPPTS 830.7570) Bio Concentration Factor (BCF), exposure 49 days (<i>Lepomis macrochirus</i>): 14853 - 18500 (whole fish), depuration time: CT50 = 30 - 31 days (whole fish). (US EPA OPPTS 850.1730)

12.4. Mobility in soil

The following data are applicable to the ingredient(s) listed below:

Name	Active substance <i>Pyridalyl, technical grade</i>
	Adsorption K _{Foc} values: 402,000 to 2,060,000 (mean 1,216,000; 1/n 0.99-1.18) ; Therefore the substance has a low mobility (US EPA OPPTS 835-1220)

12.5. Results of PBT and vPvB assessment

not required (no chemical safety report required).

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12.6. Other adverse effects no other known adverse effects on the environment.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods**Substance and/or Mixture** According to local regulations. For further advice contact manufacturer.
Contaminated packaging According to local regulations.

14. TRANSPORT INFORMATION

Land transport ADR/RID, Sea transport IMO/IMDG, Air transport ICAO-TI/IATA-DGR:

14.1. UN Number 3082

14.2. UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains: pyridalyl)

14.3. Transport hazard class(es)

Land transport ADR/RID class:	9	label:	9
IMO/IMDG code class:	9		
Air transport ICAO-TI/IATA-DGR class:	9		

14.4. Packing group III

14.5. Environmental hazards Marine pollutant: yes

14.6. Special precautions for user EMS: F-A, S-F
no other special precaution required.

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

15. REGULATORY INFORMATION

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

There is no specific regulation/legislation for this mixture.

15.2. Chemical safety assessment

No chemical safety assessment is required for this mixture.

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 and the properties of the active substance.

Changes made to the previous version: section nos 2, 3, 4, 9, 11, 12, were modified to remove any reference to directives 2001/59/EC or 1999/45/EC, add some data and the CLP classification of the mixture and ingredients.**Full text of hazard statement(s) used in this document:**

H302: Harmful if swallowed.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction
H318: Causes serious eye damage
H319: Causes serious eye irritation
H351: Suspected of causing cancer.



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

H336: May cause drowsiness or dizziness

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

EUH066: Repeated exposure may cause skin dryness or cracking

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.