

SAFETY DATA SHEET (SDS)

TITLE: SPIRODICLOFEN 240 SC

1.0 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY / UNDERTAKING**Product Identifier**

Identification on the label / Trade name : AG SPIRODICLOFEN 240 SC
Common Name : Spirodiclofen 240 g/l SC
CAS No. : 148477-71-8
EC No. : N/A
REACH registration No. : N/A

Relevant identified uses of the substance and uses advised against:**Agricultural Pesticide****Details of the Manufacturer / Supplier of the safety data sheet:**

Supplier AGROMECC SARL
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2.0 HAZARDS IDENTIFICATION**2.1 Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Classification in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Carcinogenicity: Category 1B

H350 May cause cancer.

Reproductive toxicity: Category 2

H361f Suspected of damaging fertility.

Specific target organ toxicity - repeated exposure: Category 2

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

Skin sensitisation: Category 1

H317 May cause an allergic skin reaction.

Chronic aquatic toxicity: Category 1

H410 Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Hazard label for supply/use required.

Hazardous components which must be listed on the label:

Spirodiclofen



Signal word: Danger

Hazard statements

H350 May cause cancer.

H361f Suspected of damaging fertility.

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

H317 May cause an allergic skin reaction.

H410 Very toxic to aquatic life with long lasting effects.

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

Restricted to professional users.

Precautionary statements

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P501 Dispose of contents/container in accordance with local regulation.

2.3 Other hazards No other hazards known.

3.0 COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical nature

Suspension concentrate (=flowable concentrate)(SC) Spirodiclofen 240 g/l

Hazardous components

Hazard statements according to Regulation (EC) No. 1272/2008

Name	CAS-No. / EC-No. / REACH Reg. No.	Classification	Conc. [%]
		REGULATION (EC) No	
Spirodiclofen	148477-71-8	Carc. 1B, H350 Repr. 2, H361f STOT RE 2, H373	22,2
Alkylarylpolyglycol ether	104376-75-2	Aquatic Chronic 3, H412	> 1 – < 25
Glycerine	56-81-5 200-289-5	Not classified	> 1
1,2-Benzisothiazol-3(2H)- one	2634-33-5	Acute Tox. 4, H302	> 0,005 – <
	220-120-9	Skin Irrit. 2, H315 Eye Dam. 1, H318	0,05
Mixture of: 5-chloro-2- methyl-4-isothiazolin-3-	55965-84-9	Acute Tox. 3, H331 Acute Tox. 3, H311	> 0,0002 – < 0,0015

For the full text of the H-Statements mentioned in this Section, see Section 16.

4.0 FIRST AID MEASURES

4.1 Description of first aid measures

General advice Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.

Inhalation Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.

Skin contact Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. If symptoms persist, call a physician.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Do NOT induce vomiting. Call a physician or poison control center immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms No symptoms known or expected.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment Treat symptomatically. In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of **activated charcoal and sodium sulphate** is always advisable. There is no specific antidote

5.0 FIRE – FIGHTING MEASURES

5.1 Extinguishing media

Suitable Water spray, Carbon dioxide (CO₂), Foam, Sand

5.2 Special hazards arising from the substance or mixture

In the event of fire the following may be released: Hydrogen chloride (HCl), Carbon monoxide (CO)

5.3 Advice for firefighters

Special protective equipment for firefighters

In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.

Further information

Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.

6.0 ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures :

Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment :

Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up :

Take up liquid spill into absorbent material.

Other information:

Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information, refer to section 13.

7.0 HANDLING AND STORAGE

7.1. Precautions for safe handling

Precautions for safe handling:

Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapours/spray.

Hygiene measures:

Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. 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:

Store locked up. Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

No additional information available

8.0 EXPOSURE CONTROL/PERSONAL PROTECTION

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Environmental exposure controls:

Avoid release to the environment.

9.0 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Form suspension

Colour white to light beige

Odour weak, characteristic

pH 4,5 - 5,5 at 100 % (23 °C)

Flash point > 100 °C

No flash point - Determination conducted up to the boiling point.

Ignition temperature > 600 °C

Density ca. 1,08 g/cm³ at 20 °C

Water solubility miscible

Partition coefficient: n- octanol/water

Spirodiclofen: log Pow: 5,1

Impact sensitivity Not impact sensitive.

Explosivity Not explosive

92/69/EEC, A.14 / OECD 113

9.2 Other information

Further safety related physical-chemical data are not known.

10.0 STABILITY AND REACTIVITY

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11.0 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute oral toxicity	LD50 (Rat) > 2.500 mg/kg	
Acute inhalation toxicity	LC50 (Rat) > 3,146 mg/l	
Determined in the form of a respirable aerosol. Highest attainable concentration.		
Acute dermal toxicity	LD50 (Rat) > 4.000 mg/kg	Skin irritation
(Rabbit) Eye irritation	No eye irritation (Rabbit)	No skin irritation

Sensitisation Sensitising (Guinea pig)

OECD Test Guideline 406, Magnusson & Kligman test

Assessment STOT Specific target organ toxicity – single exposure Spirodiclofen: Based on available data, the classification criteria are not met. Assessment STOT Specific target organ toxicity – repeated exposure Spirodiclofen : May cause damage to organs through prolonged or repeated exposure. Assessment mutagenicity

Spirodiclofen was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Spirodiclofen caused at high dose levels an increased incidence of tumours in mice in the following organ(s): Liver.

Spirodiclofen caused at high dose levels an increased incidence of tumours in rats in the following organ(s): uterus, Testes. The tumours seen with Spirodiclofen were caused through a non-genotoxic mechanism, which is not relevant at low doses. The mechanism that triggers tumours in rodents is not relevant for the low exposures encountered under normal use conditions.

Spirodiclofen: May cause cancer.

Assessment toxicity to reproduction

Spirodiclofen: is suspected to affect male reproductive function.

Spirodiclofen did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

Spirodiclofen did not cause developmental toxicity in rats and rabbits.

Aspiration hazard

Based on available data, the classification criteria are not met.

12.0 ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish LC50 (Lepomis macrochirus (Bluegill sunfish)) > 262 mg/l
Exposure time: 96 h

Chronic toxicity to fish Oncorhynchus mykiss (rainbow trout) Early-life Stage

Toxicity to aquatic invertebrates

NOEC: 0,00195 mg/l

Exposure time: 97 d

The value mentioned relates to the active ingredient spirodiclofen.

EC50 (Daphnia magna (Water flea)) > 450,5 mg/l

Exposure time: 48 h

Toxicity to aquatic plants IC50 (Raphidocelis subcapitata (freshwater green alga)) > 20,8 mg/l
 Growth rate; Exposure time: 96 h
 No acute toxicity was observed at its limit of water solubility.

12.2 Persistence and degradability

Biodegradability Spirodiclofen:
 Not rapidly biodegradable

Koc Spirodiclofen: Koc: 31097

12.3 Bioaccumulative potential

Bioaccumulation Spirodiclofen: Bioconcentration factor (BCF) 491
 Does not bioaccumulate.

12.4 Mobility in soil

Mobility in soil Spirodiclofen: Immobile in soil

12.5 Results of PBT and vPvB assessment

PBT and vPvB assessment Spirodiclofen: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

12.6 Other adverse effects

Additional ecological information

No other effects to be mentioned.

13.0 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant.

Contaminated packaging Not completely emptied packagings should be disposed of as hazardous waste.

Waste key for the unused product 02 01 08* agrochemical waste containing hazardous substances

14.0 TRANSPORT INFORMATION

ADR/RID/ADN	3082
14.1 UN number	
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SPIRODICLOFEN SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packaging Group	III
14.5 Environm. Hazardous Mark	YES
Hazard no.	90

This classification is in principle not valid for carriage by tank vessel on inland waterways. Please refer to the manufacturer for further information.

IMDG

14.1 UN number 3082

14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(SPIRODICLOFEN SOLUTION)

14.3 Transport hazard class(es) 9

14.4 Packaging Group III

14.5 Marine pollutant YES

IATA

14.1 UN number 3082

14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(SPIRODICLOFEN SOLUTION)

14.3 Transport hazard class(es) 9

14.4 Packaging Group III

14.5 Environm. Hazardous Mark YES

14.6 Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

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

No transport in bulk according to the IBC Code

15.0 REGULATORY INFORMATION

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

Further information

WHO-classification: III (Slightly hazardous)

15.2 Chemical safety assessment

A chemical safety assessment is not required.

16.0 OTHER INFORMATION

Further Information

The information contained herein relates only to the specified material identified. AGROMECC believes that such information is accurate and reliable as of the data of this material safety data sheet, but no representation, guarantee or warranty, expressed or implied, is made as to the accuracy, reliability, or completeness of the information. AGROMECC urges persons receiving this information to make their own determination as to the information's suitability and completeness for their particular application.