

## MATERIAL SAFETY DATA SHEET

Revision Date:09/2021

Complying with 1907/2006/EEC Regulation of 18 December 2006 ("REACH Regulation")

### SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identifier

PRODUCT NAME: Spirodiclofen 24% SC (Matador)

ISO COMMON NAMES: SPIRODICLOFEN

SYNONYMS: BAJ2740

CHEMICAL NAMES:

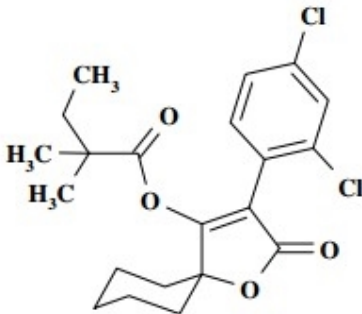
IUPAC 3-(2,4-dichlorophenyl)-2-oxo-1-oxaspiro[4.5]dec-3-en-4-yl 2,2-dimethylbutyrate

CA butanoic acid, 2,2-dimethyl-, 3-(2,4-dichlorophenyl)-2-oxo-1-oxaspiro[4.5]dec-3-en-4-yl ester

CAS No: 148477-71-8

CIPAC No: 737

STRUCTURAL FORMULA:



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

Common uses: Industrial.

#### 1.3 Details of the supplier of the safety data sheet

SUPPLIER: FORAGROS CHEMICAL INDUSTRY CO.,LTD

ADD:ROOM 8F,LIANGFENG BUILDING, NO.8 DONGFANG ROAD,SHANGHAI, P.R.CHINA.

TEL: 0086-21-51902682 FAX: 0086-21-51902680

MANUFACTURER: SHANDONG KANGQIAO BIO-TECHNOLOGY CO.,LTD

ADD: LVYI TOWN INDUSTRIAL PARK,BOXING COUNTY,SHANDONG,CHINA

#### 1.4 Emergency telephone number

Emergency telephone number (with hours of operation): 0086-21-51902682

### SECTION 2 - HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No. 1272/2008 (CLP):

Carc. 1B H350

Repr. 2 H361f

STOT RE 2 H373

Aquatic Chronic 1 H410

上海富农化工有限公司  
FORAGROS CHEMICAL INDUSTRY CO.,LTD.



See section 16 for the full text of the H-statements declared above.

**2.2 Label elements**

Labelling in accordance with Regulation 1272/2008 (CLP)

Hazard pictogram(s):



Signal word: Danger

**Hazard statement(s):**

H350: May cause cancer.

H361f: Suspected of damaging fertility.

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

H410: Very toxic to aquatic life with long lasting effects.

**Precautionary Statement(s):**

P201: Obtain special instructions before use .

P273: Avoid release to the environment .

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

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

P314: Get medical advice/attention if you feel unwell.

**2.3 Other hazard**

Not available

**SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Composition**

Hazardous Component Name :Spirodiclofen

CAS-No.: 148477-71-8

Concentration : 24%

### 3.2 Mixture

Substance name	Identifiers	%	CLP Classification
Spirodiclofen	CAS number: 148477-71-8 EC number:604-636-5	10-25	Skin Sens. 1B H317 Carc. 1B H350 Repr. 2 H361f STOT RE 2 H373 Aquatic Chronic 1 H410 M(Chronic)=10
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	CAS number: 25068-38-6 EC number: 500-033-5	<2	Skin Irrit. 2 H315 Skin Sens. 1 H317 Eye Irrit. 2 H319 Aquatic Chronic 2 H411
Phenol, polymer with formaldehyde, glycidyl ether	CAS number: 28064-14-4 EC number: 608-164-0	<2	Skin Irrit. 2 H315 Skin Sens. 1 H317 Eye Irrit. 2 H319 Aquatic Chronic 2 H411
Feldspar-group minerals	CAS number: 68476-25-5 EC number: 270-666-7	<2	Eye Irrit. 2 H319 STOT SE 3 H335
Glycerol propoxylate triglycidyl ether	CAS number: 37237-76-6 EC number: 609-366-1	<0.3	Skin Irrit. 2 H315 Skin Sens. 1 H317 Eye Irrit. 2 H319
5-chloro-2-methyl-2H-isothiazol-3-one	CAS number: 26172-55-4 EC number: 247-500-7	<0.3	Acute Tox. 2 H300 Acute Tox. 2 H310 Skin Corr. 1B H314 Skin Sens. 1 H317 Eye Dam. 1 H318 Acute Tox. 2 H330 Aquatic Acute 1 H400

See section 16 for the full text of the H-statements declared above.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

**Occupational exposure limits, if available, are listed in section 8.**

### SECTION 4- FIRST AID MEASURES

#### 4.1 Description of first aid measures

**Eyes contact:**

In case of contact with eyes, rinse immediately with plenty of water for at least 15 minutes. Get medical attention.

**Skin contact:**

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Get medical attention.

**Inhalation:**

Remove the victim from site of exposure to fresh air. If breathing is difficult, give oxygen. If not breathing give artificial respiration. Get medical attention.

**Ingestion:**

Do not induce vomiting. If victim is conscious, wash mouth thoroughly with plenty of water. Never give anything by mouth to an unconscious person. Get medical attention.

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

See section 2.2 (Label elements) and/or section 11 (Toxicological information) for the most important known symptoms and effects.

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

Not available

**SECTION 5 - FIRE FIGHTING MEASURES**

**5.1 Extinguishing media**

Suitable: Foam, carbon dioxide, dry powder or water spray.

Not suitable: N/A

**5.2 Special hazards arising from the substance or mixture**

Under fire conditions may emit toxic and irritating fumes.

**5.3 Advice for firefighters**

Special protective equipment for fire fighters: Fire fighters should wear full protective clothing and self-contained breathing apparatus in positive pressure mode.

**SECTION 6: Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

Ventilate area of spill.

**6.2 Environmental precautions**

Prevent entry into waterways, sewers, basements or confined areas.

**6.3 Methods and materials for containment and cleaning up**

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations.

**6.4 Reference to other sections**

See Section 1 for emergency contact information.

**SECTION 7: Handling and storage**

**7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapors, mist or gas. Wash thoroughly after handling.

Handle in accordance with good industrial hygiene and safety practice.

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also section 8 for additional information measures.

**7.2 Conditions for safe storage, including any incompatibilities**

Storage: Keep container tightly closed in a dry, cool and well-ventilated place. Keep away from strong oxidizing agents.

**7.3 Specific end use(s): N/A**

**SECTION 8: Exposure control/personal protection**

**8.1 Control parameters**

Occupational exposure limit values: N/A

**8.2 Exposure controls**

**Engineering measures:** Use process enclosures, local exhaust ventilation, or others engineering controls to keep airborne levels below recommend exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Person Protective measures**

**Respiratory protection:** Suitable respirator. Be sure to use an approved/certified equipment or equivalent equipment. Wear appropriate respirator when ventilation is inadequate.

**Hand protection:** Wear protective gloves to prevent skin exposure.

**Eye protection:** Wear protective safety glasses.

**Skin protection:** Wear appropriate long-sleeved clothing to minimize skin contact.

**Environmental exposure controls:** Not available

**SECTION 9: Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

Appearance: Liquid

Odour: N/A

Odour threshold: N/A

pH: N/A

Melting point/Freezing point: N/A

Initial boiling point/boiling range: N/A

Flash point: N/A

Evaporation rate: N/A

Flammability: N/A

Upper/lower flammability or explosive limits: N/A

Vapor pressure: N/A

Vapor density: N/A

Relative density: N/A

Solubility(ies): Soluble in water

Partition coefficient Octanol/Water: N/A

Auto-ignition temperature: N/A

Decomposition temperature: N/A

Viscosity: N/A

Explosive properties: N/A

Oxidizing properties: N/A

**9.2 Other information**

N/A

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Not available

### 10.2 Chemical stability

The product is stable under normal handling and storage conditions described in Section 7

### 10.3 Possibility of hazardous reactions

Hazardous reactions are not expected, under normal conditions of storage and use.

### 10.4 Conditions to avoid

Not available

### 10.5 Incompatible materials

Strong oxidizing agents.

### 10.6 Hazardous decomposition products

Other decomposition products: not available

In the event of fire: see section 5

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity:

Product/substance name	Test	Species	Dose
Matador	LD50, Oral	Rat	>2500 mg/kg
	LD50, Administration onto the skin	Rat	>2000 mg/kg
	LC50, Inhalation	Rat	>3.10 mg/l/4H

**Skin corrosion/irritation:** Non irritant to skin .

**Serious eye damage/irritation:** Minimal irritant to eyes.

**Respiratory or skin sensitization:** Non sensitiser to skin.

**Germ cell mutagenicity:** Not available

**Carcinogenicity:** May cause cancer.

**Reproductive toxicity:** Suspected of damaging fertility.

**Specific target organ toxicity (single exposure):** Not available

**Specific target organ toxicity (repeated exposure):** May cause damage to organs through prolonged or repeated exposure .

**Aspiration hazard:** Not available

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Toxicity to algae	Toxicity to fish	Toxicity to crustaceans
Spirodiclofen	EC50/96h - Pseudokirchneriella subcapitata - >18.8 mg/L	LC50/96h - Bluegill sunfish - >250 mg/L	EC50/48h - Daphnia magna - >450 mg/L
5-chloro-2-methyl-2H-isothiazol-3-one	EC50/96h - Pseudokirchneriella subcapitata - >30.8 mg/L	LC50/96h - Bluegill sunfish - >313 mg/L	EC50/48h - Daphnia magna - >450.3 mg/L

**12.2 Persistence and Degradability**

Not available

**12.3 Bioaccumulative potential**

Not available

**12.4 Mobility in soil**

Not available

**12.5 Results of PBT and vPvB assessment**

Not available

**12.6 Other adverse effects**

Very toxic to aquatic life with long lasting effects.

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

**Product**

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

**Packing**

Empty containers should be taken for local recycling, recovery or waste disposal.

**SECTION 14: Transport information**

**14.1 Un number**

**ADR/RID:** 3082

**IMDG:** 3082

**IATA:** 3082

**14.2 Proper shipping name**

**ADR/RID:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Spirodiclofen)

**IMDG:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Spirodiclofen)

**IATA:** Environmentally hazardous substance, liquid, n.o.s. (Spirodiclofen)

**14.3 Transport hazard class(es)**

**ADR/RID:** 9

**IMDG:** 9

**IATA:** 9

**14.4 Packing group**

**ADR/RID:** III

**IMDG:** III

**IATA:** III

**14.5 Environmental hazard**

Marine Pollutant: Yes

**14.6 Special precautions for user**

Not available

**14.7 Transport to bulk according to Annex II of MARPOL 79/78 and the IBC Code**

Not available

**SECTION 15: Regulatory information**

This SDS complies with the following requirements of:

EU Regulation (EC) No.1907/2006 (REACH) including amendments

Regulation (EC) No.1272/2008 (CLP)

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

Not available

**15.2 Chemical safety assessment**

Not available

**SECTION 16: Other information**

Full text of Hazards Statements referred to in sections 2 and 3:

Acute Tox. - Acute toxicity

Carc. - Carcinogenicity

Skin Sens. - Skin sensitization

STOT RE - Specific target organ toxicity — repeated exposure

STOT SE - Specific target organ toxicity — single exposure

Aquatic Acute - Hazardous to the aquatic environment

Aquatic Chronic - Hazardous to the aquatic environment

Repr. - Reproductive toxicity

Skin Corr. - Skin corrosion

Eye Dam. - Serious eye damage

Skin Irrit. - Skin irritation

Eye Irrit. - Eye irritation

H300:

Fatal if swallowed.

H310: Fatal in contact with skin.

H314: Causes severe skin burns and eye damage .

H315: Causes skin irritation.

H317: May cause an allergic skin reaction .

H318: Causes serious eye damage.

H319: Causes serious eye irritation .

H330: Fatal if inhaled.

H335: May cause respiratory irritation .

H350: May cause cancer.

H361f: Suspected of damaging fertility.

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 .

Training advice: Before using/handling the product one must read carefully present SDS.

Key Legend Information:

CAS - Chemical Abstract Service

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NTP - National Toxicology program

IARC - International Agency for Research on Cancer

N/A - Not available



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**FORAGROS CHEMICAL INDUSTRY CO.,LTD.**

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H - statements- Hazard statements

TLV - Threshold Limit Value

TWA - Time-weighted average

STEL - Short-Term Exposure Limit

CSA - Chemical safety assessment

Date of issue:08/08/2021

Version no.: 1