

Safety Data Sheet

#49631028 · Full 16-section SDS

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

PRODUCT	CAS NUMBER	FORMULA	VERSION	REVISION DATE
Spironolactone	52-01-7	C24H32O4S	10	08 Oct 2026

SECTION 1

Identification

1.1 Product identifier

Product name	Spironolactone
CAS number	52-01-7
EC / EINECS number	200-133-6
Chemical formula	C24H32O4S
Molecular weight	416.57
SMILES	<chem>O=C(SC1CC2=CC(=O)CCC2(C)C3CCC4(C)C(CCC54OC(=O)CC5)C13)C</chem>

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

For research and development. Laboratory chemicals. Manufacture of substances. Not suitable for human or veterinary purposes.

1.3 Details of the supplier of the safety data sheet

Molekula Limited
1 Millennium Way, Newton Aycliffe
Durham, DL5 6JW, United Kingdom
info@molekula.com · +44 (0) 3302 000333

1.4 Emergency telephone number

0344 892 0111 — National Poisons Information Service (NPIS) (United Kingdom — for healthcare professionals (via TOXBASE))

SECTION 2

Hazard identification

2.1 Classification of the substance or mixture

Carcinogenicity (Category 2), H351

Reproductive toxicity (Category 1B), H360FD

Specific target organ toxicity - repeated exposure (Category 2), H373

2.2 Label elements



DANGER

CODE	HAZARD STATEMENT
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H302+H312+H332	Harmful if swallowed, in contact with skin or if inhaled
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H351	Suspected of causing cancer
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H360	May damage fertility or the unborn child
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H373	May cause damage to organs through prolonged or repeated exposure
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CODE	PRECAUTIONARY STATEMENT
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P260	Do not breathe dust/fume/gas/mist/vapours/spray
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P263	Avoid contact during pregnancy/while nursing
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P280	Wear protective gloves/protective clothing/eye protection/face protection
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P301+310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
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P302+P352	IF ON SKIN: Wash with soap and water
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P304+P341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
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P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do, continue rinsing
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P308+313	IF exposed or concerned: Get medical advice/attention
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P501	Dispose of contents/container to an approved waste disposal plant
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2.3 Other hazards

Contains no PBT/vPvB components or endocrine disruptors at levels of 0.1% or higher.

SECTION 3

Composition / information on ingredients**3.1 Substances**

Name	Spironolactone
CAS number	52-01-7
EC number	200-133-6
Concentration / purity	~100%
Classification according to Regulation (EC) No 1272/2008	Carcinogenicity (Category 2), H351 Reproductive toxicity (Category 1B), H360FD Specific target organ toxicity - repeated exposure (Category 2), H373
Hazard statements	H302+H312+H332, H351, H360, H373
Acute toxicity estimate (ATE)	<i>No data available</i>
Impurities / stabilising additives	<i>Not applicable</i>

SECTION 4

First-aid measures**4.1 Description of first aid measures**

Inhalation	Move to fresh air; call a physician.
Skin contact	Immediately remove all contaminated clothing, rinse skin with water/shower and consult a physician.
Eye contact	Rinse out with plenty of water, remove contact lenses and call an ophthalmologist.
Ingestion	Immediately make victim drink water (two glasses at most) and consult a physician.

Get medical attention if any discomfort continues. Show this Safety Data Sheet (SDS) to medical personnel. First aiders/ medical personnel need to protect themselves.

4.2 Most important symptoms and effects, both acute and delayed

Treat symptomatically.

4.3 Indication of any immediate medical attention and special treatment needed

Not applicable

SECTION 5

Fire-fighting measures**5.1 Extinguishing media**

Suitable extinguishing media	Water, foam, carbon dioxide (CO ₂), dry powder
Unsuitable extinguishing media	No limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Combustible; hazardous combustion gases possible in fire, including carbon oxides and sulphur oxides.

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus and wear suitable protective clothing; suppress gases with water spray and prevent fire water from contaminating surface or ground water.

SECTION 6

Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid inhalation of dusts and substance contact, ensure adequate ventilation, evacuate the danger area and consult an expert.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and material for containment and cleaning up

Cover drains; collect, bind and pump off spills, take up carefully avoiding dust generation, dispose of properly and clean affected area.

6.4 Reference to other sections

For specific precautions, see Section 8 and Section 13.

SECTION 7

Handling & storage

7.1 Precautions for safe handling

Work under hood, do not inhale substance; change contaminated clothing immediately, apply preventive skin protection and wash hands and face after work.

7.2 Conditions for safe storage, including any incompatibilities

Storage temperature	Ambient
Conditions for safe storage (incompatibilities)	Keep tightly closed, dry, in a well-ventilated place, locked up or accessible only to authorised persons; storage class 6.1C.

7.3 Specific end use(s)

See Section 1.2.

SECTION 8

Exposure controls / personal protection

8.1 Control parameters

Occupational exposure limits (OEL / WEL) *Not applicable*

DNEC/PNEC data *Not applicable*

8.2 Exposure controls

Eye / face protection	Safety glasses Wear eye/face protection as recommended. All eye/face protection should comply with EN ISO 16321-1:2022.
Skin / hand protection	Butyl-rubber gloves
Respiratory protection	Dust mask (FFP2/FFP3) Keep self-contained breathing apparatus readily available for emergency use. Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided. Respiratory equipment: Reusable Air-Purifying Respirator (APR). Filter type: ABEK. Standard: EN 14387.
Other protection	Protective clothing
Environmental exposure controls	Do not let product enter drains.

SECTION 9

Physical & chemical properties

9.1 Information on basic physical and chemical properties

Appearance / physical state	Powder DERIVED FROM: LITERATURE
Colour	White DERIVED FROM: LITERATURE
Odour	Pungent DERIVED FROM: LITERATURE
Melting / freezing point	207 - 208 °C (lit.) DERIVED FROM: LITERATURE
Boiling point	<i>Not applicable</i>
Flammability	<i>No data available</i>
Lower and upper explosion limit	<i>No data available</i>
Flash point	<i>Not applicable</i>
Auto-ignition temperature	<i>Not applicable</i>
Decomposition temperature	<i>No data available</i>
pH	<i>Not applicable</i>
Acidity	Neutral DERIVED FROM: LITERATURE
Kinematic viscosity	<i>No data available</i>
Solubility	Insoluble in water DERIVED FROM: LITERATURE
Partition coefficient n-octanol/water (log value)	<i>Not applicable</i>
Vapour pressure	<i>Not applicable</i>

Density (g/mL)	1 g/mL DERIVED FROM: LITERATURE
Relative vapour density	<i>No data available</i>
Particle characteristics	<i>No data available</i>

9.2 Other information

No data available

SECTION 10

Stability & reactivity

10.1 Reactivity

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

10.2 Chemical stability

Chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

Violent reactions possible with strong oxidizing agents.

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Strong oxidising agents.

10.6 Hazardous decomposition products

In the event of fire: see section 5.

SECTION 11

Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (LD50 / LC50)	LD50 Oral - Rat - 4,121 mg/kg
Skin corrosion / irritation	<i>Not applicable</i>
Eye corrosion / irritation	<i>Not applicable</i>
Respiratory / skin sensitisation	Maximisation test (guinea pig): negative
Carcinogenicity	Suspected of causing cancer.
Mutagenicity	Ames test (S. typhimurium and E. coli, with and without metabolic activation): negative
Reproductive toxicity	May damage fertility. May damage the unborn child.
STOT (single / repeated exposure)	Single exposure: no data available; repeated exposure: may cause damage to organs through prolonged or repeated exposure.

Aspiration hazard*Not applicable*

11.2 Information on other hazards

This product does not contain any known or suspected endocrine disruptors.

SECTION 12**Ecological information****12.1 Toxicity***Not applicable*

12.2 Persistence and degradability*Not applicable*

12.3 Bioaccumulative potential*Not applicable*

12.4 Mobility in soil*Not applicable*

12.5 Results of PBT and vPvB assessment*Not applicable*

12.6 Endocrine disrupting properties*See Section 11.2.*

12.7 Other adverse effects*No data available*

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

Dispose of in accordance with national and local regulations; leave chemicals in original containers, do not mix with other waste, handle uncleaned containers like the product itself.

SECTION 14**Transport information****14.1 UN number or ID number***Not applicable*

14.2 UN proper shipping name*Not applicable*

14.3 Transport hazard class(es)*Not applicable*

14.4 Packing group

Not applicable

14.5 Environmental hazards

Not applicable

14.6 Special precautions for user

Special precautions for user *Not applicable*

Transport category *Not applicable*

Tunnel code *Not applicable*

Packing instruction (ADR) *Not applicable*

Packing instruction (IMDG) *Not applicable*

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15

Regulatory information

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

Substance-specific regulations (e.g. licences) *Not applicable*

REACH code Y110

ECHA notification *Not applicable*

15.2 Chemical safety assessment

Not required

SECTION 16

Other information

Revision notes / other information *Not applicable*

This Safety Data Sheet was generated automatically from the data Molekula holds against this product, in the 16-section GHS/CLP format. Fields shown as "No data available" carry no recorded value; fields shown as "Not applicable" were assessed as not relevant to this substance. For queries, contact Molekula at info@molekula.com.