

Safety Data Sheet**BIOZIDE**

according to Regulation (EC) No 1907/2006

**GreenRange EC Bio**

Revision date: 15.05.2019

Product code: 00434-0089

Page 1 of 12

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

GreenRange EC Bio

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

Pesticide

1.3. Details of the supplier of the safety data sheet

Company name: FROWEIN GmbH & Co. KG

Street: Am Reislebach 83

Place: D-72461 Albstadt

Telephone: +49 (0) 74 32-956 - 0

Telefax: +49 (0) 74 32-956 - 138

Responsible Department: Responsible for the safety data sheet: sds@gbk-ingelheim.de

1.4. Emergency telephone number:INTERNATIONAL: +49 - (0) 6132 - 84463, GBK GmbH (24h - 7d/w - 365d/a)
In England and Wales: NHS 111 In Scotland: NHS 24 - dial 111**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Flammable liquid: Flam. Liq. 3

Aspiration hazard: Asp. Tox. 1

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Dam. 1

Hazardous to the aquatic environment: Aquatic Acute 1

Hazardous to the aquatic environment: Aquatic Chronic 1

Hazard Statements:

Flammable liquid and vapour.

May be fatal if swallowed and enters airways.

Causes skin irritation.

Causes serious eye damage.

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

2.2. Label elements**Regulation (EC) No. 1272/2008****Hazard components for labelling**

Distillates (petroleum)

Calcium dodecylbenzenesulphonate

Alkanes C9-C12-iso

2-Methylpropan-1-ol

Chrysanthemum cinerariaefolium, extract (pyrethrines)

Signal word: Danger**Pictograms:**

Safety Data Sheet**BIOZIDE**

according to Regulation (EC) No 1907/2006

**GreenRange EC Bio**

Revision date: 15.05.2019

Product code: 00434-0089

Page 2 of 12

Hazard statements

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements

P102	Keep out of reach of children.
P101	If medical advice is needed, have product container or label at hand.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331	Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P273	Avoid release to the environment.
P391	Collect spillage.
P501	Dispose of contents/container to in accordance with local and national regulations.

2.3. Other hazards

According to Regulation (EC) No 1907/2006 (REACH) none of the substances, contained in this product are a PBT / vPvB substance.

Vapours may form explosive mixture with air.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Chemical characterization**

Preparation in aliphatic hydrocarbons

Safety Data Sheet

BIOZIDE

according to Regulation (EC) No 1907/2006



GreenRange EC Bio

Revision date: 15.05.2019

Product code: 00434-0089

Page 3 of 12

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
64742-47-8	Distillates (petroleum)			< 20 %
	265-149-8			
	Asp. Tox. 1; H304 EUH066			
26264-06-2	Calcium dodecylbenzenesulphonate			< 10 %
	247-557-8		01-2120122335-68	
	Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Aquatic Chronic 4; H302 H315 H318 H413			
90622-57-4	Alkanes C9-C12-iso			< 10 %
	292-459-0		01-2119471991-29	
	Flam. Liq. 3, Asp. Tox. 1, Aquatic Chronic 4; H226 H304 H413 EUH066			
89997-63-7	Chrysanthemum cinerariaefolium, extract (pyrethrines)			6,25 %
	289-699-3			
	Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Aquatic Acute 1 (M-Factor = 100), Aquatic Chronic 1 (M-Factor = 100); H332 H312 H302 H400 H410			
78-83-1	2-Methylpropan-1-ol			< 5 %
	201-148-0	603-108-00-1	01-2119484609-23	
	Flam. Liq. 3, Skin Irrit. 2, Eye Dam. 1, STOT SE 3, STOT SE 3; H226 H315 H318 H335 H336			

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures**General information**

Remove contaminated soaked clothing immediately.
If you feel unwell, seek medical advice.

After inhalation

Move to fresh air in case of accidental inhalation of vapours.
In the event of symptoms refer for medical treatment.

After contact with skin

Wash off immediately with plenty of water and soap for at least 15 minutes.
Consult a physician.

After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Consult (eye) doctor immediately.

After ingestion

Do not induce vomiting.
Rinse out mouth and give plenty of water to drink.
Never give anything by mouth to an unconscious person.
Summon a doctor immediately.
Induce vomiting only upon the advice of a physician.

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

May be fatal if swallowed and enters airways.
Causes serious eye damage.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

BIOZIDE**GreenRange EC Bio**

Revision date: 15.05.2019

Product code: 00434-0089

Page 4 of 12

Causes skin irritation.

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

Treat symptoms.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**Foam, carbon dioxide (CO₂), dry chemical, water-spray.**Unsuitable extinguishing media**

Full water jet

5.2. Special hazards arising from the substance or mixture

Fire may produce:

Carbon monoxide (CO), carbon dioxide (CO₂) and sulphur oxides (SO_x)**5.3. Advice for firefighters**

Wear self-contained breathing apparatus and protective suit.

Additional information

Cool containers at risk with water spray jet.

The vapour/air mixture is explosive, even in empty, uncleaned receptacles.

Vapours are heavier than air and spread along ground.

Do not release chemically contaminated water into drains, soil or surface waters. Sufficient measures must be taken to retain water used for extinguishing.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

In case of vapour formation use respirator.

Use only explosion-proof equipment.

Ensure adequate ventilation.

Remove persons to safety.

Use personal protective clothing.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/ground water.

Do not discharge into the subsoil/soil.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).

Shovel into suitable container for disposal.

Clean contaminated surface thoroughly.

6.4. Reference to other sections

Observe protective instructions (see Sections 7 and 8).

Information for disposal see section 13.

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Keep container tightly closed.

Vapours are heavier than air and spread along ground.

Avoid contact with the skin and the eyes.

In case of insufficient ventilation, especially in confined areas.

Safety Data Sheet**BIOZIDE**

according to Regulation (EC) No 1907/2006

**GreenRange EC Bio**

Revision date: 15.05.2019

Product code: 00434-0089

Page 5 of 12

Do not breathe vapours or spray mist.

Advice on protection against fire and explosion

Do not smoke - volatile.

Keep away from heat and sources of ignition.

Take precautionary measures against static discharges.

Pay attention to anti-explosion rules.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed in a dry, cool and well-ventilated place.

Pay attention to anti-explosion rules.

Hints on joint storage

Incompatible with oxidizing agents.

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

Pesticide

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
78-83-1	2-Methylpropan-1-ol	50	154		TWA (8 h)	WEL
		75	231		STEL (15 min)	WEL

8.2. Exposure controls**Appropriate engineering controls**

Ensure adequate ventilation, especially in confined areas.

Protective and hygiene measures

Wash hands before breaks and immediately after handling the product.

When using do not eat, drink or smoke.

Treat subsequently with skin cream.

Take off immediately all contaminated clothing.

Avoid contact with skin, eyes and clothing.

Eye/face protection

Tightly fitting goggles (EN 166).

Eye wash bottle with pure water (EN 15154).

Hand protection

Protective gloves resistant to chemicals made off nitrile, Minimum coat thickness 0.4 mm, Permeation resistance (wear duration) approx. 480 minutes, i.e. protective glove <Camatril 735> made by www.kcl.de. This recommendation refers exclusively to the chemical compatibility and the lab test conforming to EN 374 carried out under lab conditions.

Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves.

Skin protection

Wear standard protective suit (plant protection) when spreading/handling the product (CE 93 0120).

Wide brimmed headgear made of strong cloth

Safety Data Sheet**BIOZIDE**

according to Regulation (EC) No 1907/2006

**GreenRange EC Bio**

Revision date: 15.05.2019

Product code: 00434-0089

Page 6 of 12

Rubber apron (EN 467).

Respiratory protection

Use protective face mask with A1-P3 (40 ASt) filter when spraying (EN 14387).

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

Physical state:	Liquid	
Colour:	Yellowish	
Odour:	Hydrocarbon-like	
pH-Value:		n.d.

Changes in the physical state

Melting point:		n.d.
Initial boiling point and boiling range:		n.d.
Sublimation point:		n.a.
Softening point:		n.d.
Flash point:		< 55 °C

Flammability

Solid:		n.a.
Gas:		n.a.

Explosive properties

The product is considered non-explosive; nevertheless explosive vapour/air mixture can be generated

Lower explosion limits:		n.d.
Upper explosion limits:		n.d.
Ignition temperature:		n.d.

Auto-ignition temperature

Solid:		n.a.
Gas:		n.a.

Decomposition temperature:		n.d.
----------------------------	--	------

Oxidizing properties

Not oxidising.

Vapour pressure:		n.d.
------------------	--	------

Density (at 20 °C):		0,93 g/cm ³
---------------------	--	------------------------

Bulk density:		n.a.
---------------	--	------

Water solubility: (at 20 °C)		Immiscible
---------------------------------	--	------------

Solubility in other solvents

n.d.

Partition coefficient:		n.d.
------------------------	--	------

Viscosity / dynamic:		n.d.
----------------------	--	------

Viscosity / kinematic: (at 40 °C)		< 20,5 mm ² /s
--------------------------------------	--	---------------------------

Flow time:		n.d.
------------	--	------

Vapour density:		n.d.
-----------------	--	------

Safety Data Sheet

according to Regulation (EC) No 1907/2006

BIOZIDE**GreenRange EC Bio**

Revision date: 15.05.2019

Product code: 00434-0089

Page 7 of 12

Evaporation rate: n.d.
Solvent separation test: n.d.
Solvent content: < 30 %

9.2. Other information

No data available

SECTION 10: Stability and reactivity**10.1. Reactivity**

No decomposition if stored and applied as directed.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reactions with oxidizing agents.

10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat.
Vapour/air mixtures are explosive at intensive warming.
Heating can release vapours which can be ignited.

10.5. Incompatible materials

oxidizing agents

10.6. Hazardous decomposition products

Carbon monoxide, carbon dioxide, sulphur oxides.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity**

Based on available data, the classification criteria are not met.
No toxicological data available.

Irritation and corrosivity

Causes skin irritation.
Causes serious eye damage.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

May be fatal if swallowed and enters airways.

Additional information on tests

Classification in compliance with the assessment procedure specified in the Regulation (EC) no 1272/2008.

Practical experience

Safety Data Sheet**BIOZIDE**

according to Regulation (EC) No 1907/2006

**GreenRange EC Bio**

Revision date: 15.05.2019

Product code: 00434-0089

Page 8 of 12

Other observations

Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

High concentration of vapours may cause irritation to eyes and respiratory system and produce narcotic effects.

Occasionally literature hints report that contact with Pyrethrum compounds may trigger hay fever similar reactions in particularly sensible persons.

SECTION 12: Ecological information**12.1. Toxicity**

Ecological data are not available.

Very toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

According to Regulation (EC) No 1907/2006 (REACH) none of the substances, contained in this product are a PBT / vPvB substance.

12.6. Other adverse effects

Severe hazard to waters.

Further information

Do not flush into surface water or sanitary sewer system.

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

Where possible recycling is preferred to disposal.

Can be incinerated, when in compliance with local regulations.

List of Wastes Code - residues/unused products

200119 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS; separately collected fractions (except 15 01); Pesticides; hazardous waste

List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

Re-using the polluted packaging materials is not allowed.

Contaminated packagings are to be treated like the product itself.

SECTION 14: Transport information**Land transport (ADR/RID)**

Safety Data Sheet

BIOZIDE

according to Regulation (EC) No 1907/2006



GreenRange EC Bio

Revision date: 15.05.2019

Product code: 00434-0089

Page 9 of 12

14.1. UN number: UN 3295
14.2. UN proper shipping name: HYDROCARBONS, LIQUID, N.O.S.
14.3. Transport hazard class(es): 3
14.4. Packing group: III
 Hazard label: 3



Classification code: F1
 Limited quantity: 5 L / 30 kg
 Excepted quantity: E1
 Transport category: 3
 Hazard No: 30
 Tunnel restriction code: D/E

Inland waterways transport (ADN)

14.1. UN number: UN 3295
14.2. UN proper shipping name: HYDROCARBONS, LIQUID, N.O.S.
14.3. Transport hazard class(es): 3
14.4. Packing group: III
 Hazard label: 3



Classification code: F1
 Limited quantity: 5 L / 30 kg
 Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number: UN 3295
14.2. UN proper shipping name: HYDROCARBONS, LIQUID, N.O.S. (Chrysanthemum cinerariaefolium, extract (pyrethrines))
14.3. Transport hazard class(es): 3
14.4. Packing group: III
 Hazard label: 3



Marine pollutant: Yes
 Limited quantity: 5 L / 30 kg
 Excepted quantity: E1
 EmS: F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 3295
14.2. UN proper shipping name: HYDROCARBONS, LIQUID, N.O.S.
14.3. Transport hazard class(es): 3
14.4. Packing group: III

Safety Data Sheet

according to Regulation (EC) No 1907/2006

BIOZIDE**GreenRange EC Bio**

Revision date: 15.05.2019

Product code: 00434-0089

Page 10 of 12

Hazard label: 3



Limited quantity Passenger:	10 L	
Passenger LQ:	Y344	
Excepted quantity:	E1	
IATA-packing instructions - Passenger:		355
IATA-max. quantity - Passenger:		60 L
IATA-packing instructions - Cargo:		366
IATA-max. quantity - Cargo:		220 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes

**14.6. Special precautions for user**

Handle in accordance with good industrial hygiene and safety practice.

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

The transport takes place only in approved and appropriate packaging.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

2004/42/EC (VOC):	< 30 %
Information according to 2012/18/EU (SEVESO III):	P5c FLAMMABLE LIQUIDS

National regulatory information

Employment restrictions:	Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Water hazard class (D):	3 - strongly hazardous to water
Biocide registry number:	BAuA-Reg. Nr. N-37751

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information**Changes**

Changes in chapter: 2, 4, 15

Safety Data Sheet**BIOZIDE**

according to Regulation (EC) No 1907/2006

**GreenRange EC Bio**

Revision date: 15.05.2019

Product code: 00434-0089

Page 11 of 12

Abbreviations and acronyms

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
 RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
 ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intéri
 IMDG = International Maritime Code for Dangerous Goods
 IATA/ICAO = International Air Transport Association / International Civil Aviation Organization
 MARPOL = International Convention for the Prevention of Pollution from Ships
 IBC-Code = International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 REACH = Registration, Evaluation, Authorization and Restriction of Chemicals
 CAS = Chemical Abstract Service
 EN = European norm
 ISO = International Organization for Standardization
 DIN = Deutsche Industrie Norm
 PBT = Persistent Bioaccumulative and Toxic
 vPvB = Very Persistent and very Bio-accumulative
 LD = Lethal dose
 LC = Lethal concentration
 EC = Effect concentration
 IC = Median immobilisation concentration or median inhibitory concentration

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Flam. Liq. 3; H226	On basis of test data
Asp. Tox. 1; H304	Calculation method
Skin Irrit. 2; H315	Calculation method
Eye Dam. 1; H318	Calculation method
Aquatic Acute 1; H400	Calculation method
Aquatic Chronic 1; H410	Calculation method

Relevant H and EUH statements (number and full text)

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.
EUH066	Repeated exposure may cause skin dryness or cracking.

Further Information

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge.

Safety Data Sheet

FROWEIN GmbH & Co. KG

according to Regulation (EC) No 1907/2006

BIOZIDE



GreenRange EC Bio

Revision date: 15.05.2019

Product code: 00434-0089

Page 12 of 12

The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

(n.a. = not applicable; n.d. = not determined)

The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)