

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : Substral Rasendünger mit Unkrautvernichter
Product code : 300000001594
Other means of identification : 8538, 8669, 8668, 8339, 8344

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

1.2.1. Relevant identified uses

Intended for general public
Use of the substance/mixture : Herbicide. For non-professional users.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Evergreen Garden Care Deutschland GmbH
Wilhelm-Theodor-Römheld-Straße 30
DE- 55130 Mainz
Deutschland
T +49 (0)1805 780 300 (14 ct/Min. a. d. dt. Festnetz. Max. 42 ct/Min. aus den Mobilfunknetzen)
E-mail address of competent person responsible for the SDS : info-sds@evergreengarden.com

Supplier

Evergreen Garden Care Deutschland GmbH
Wilhelm-Theodor-Römheld-Straße 30
DE- 55130 Mainz
Deutschland
T +49 (0)1805 780 300 (14 ct/Min. a. d. dt. Festnetz. Max. 42 ct/Min. aus den Mobilfunknetzen)
E-mail address of competent person responsible for the SDS : info-sds@evergreengarden.com

1.4. Emergency telephone number

Country	Official advisory body	Address	Emergency number	Comment
Germany	Evergreen Garden Care Deutschland GmbH - Giftnotruf (NCEC)		+49 (0) 800 14 74 74 1	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Precautionary statements (CLP) : P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P270 - Do not eat, drink or smoke when using this product.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

EUH-statements : EUH208 - Contains 2,4-D (ISO); 2,4-dichlorophenoxyacetic acid. May produce an allergic reaction.
EUH401 - To avoid risks to human health and the environment, comply with the instructions for use.

Extra phrases : SP1 - Do not contaminate water with the product or its container.

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

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SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
calcium dihydrogen phosphate	CAS-No.: 7758-23-8 EC-No.: 231-837-1	> 4,374468	Eye Dam. 1, H318
2-methylpentane-2,4-diol	CAS-No.: 107-41-5 EC-No.: 203-489-0 EC Index-No.: 603-053-00-3	1 – 5	Eye Irrit. 2, H319 Skin Irrit. 2, H315
2,4-D (ISO); 2,4-dichlorophenoxyacetic acid	CAS-No.: 94-75-7 EC-No.: 202-361-1 EC Index-No.: 607-039-00-8	< 1	Acute Tox. 4 (Oral), H302 STOT SE 3, H335 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412
potassium hydrogensulphate	CAS-No.: 7646-93-7 EC-No.: 231-594-1 EC Index-No.: 016-056-00-4	< 1	Skin Corr. 1B, H314 STOT SE 3, H335
dicamba (ISO); 2,5-dichloro-6-methoxybenzoic acid; 3,6-dichloro-2-methoxybenzoic acid	CAS-No.: 1918-00-9 EC-No.: 217-635-6 EC Index-No.: 607-043-00-X	< 1	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Aquatic Chronic 3, H412

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: If eye irritation persists: Seek medical advice. Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

No additional information available

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

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 : Mechanically recover the product.
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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures : 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 in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Ensure good ventilation of the work station.

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8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Granules.
Colour	: Brown.
Odour	: characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 0,92 g/cm ³
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosion limits	:

9.2. Other information

No additional information available

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SECTION 10: 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.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

2,4-D (ISO); 2,4-dichlorophenoxyacetic acid (94-75-7)

LD50 oral rat	370 mg/kg bodyweight (Rat, Oral)
LD50 dermal rabbit	1400 mg/kg bodyweight (Rabbit, Skin)

dicamba (ISO); 2,5-dichloro-6-methoxybenzoic acid; 3,6-dichloro-2-methoxybenzoic acid (1918-00-9)

LD50 oral rat	1039 mg/kg (Rat, Oral)
LD50 dermal rat	2000 mg/kg (Rat, Dermal)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit, Dermal)

2-methylpentane-2,4-diol (107-41-5)

LD50 oral rat	> 2000 mg/kg bodyweight (OECD 420: Acute Oral toxicity – Acute Toxic Class Method, Rat, Male / female, Experimental value, Oral)
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal)
LC50 Inhalation - Rat	> 55 g/m ³ (Equivalent or similar to OECD 403, 8 h, Rat, Male, Experimental value, Inhalation (vapours))

calcium dihydrogen phosphate (7758-23-8)

LD50 oral rat	17500 mg/kg (Rat, Literature, Oral)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit, Literature, Dermal)

Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met. Prüfergebnisse gemäß OECD N° 404, GLP Standard)
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met. Prüfergebnisse gemäß OECD N° 405, GLP Standard)
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met. Haut Sens.: Prüfergebnisse gemäß OECD N° 429, GLP Standard)
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified

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2,4-D (ISO); 2,4-dichlorophenoxyacetic acid (94-75-7)	
STOT-single exposure	May cause respiratory irritation.
potassium hydrogensulphate (7646-93-7)	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified
Not rapidly degradable	

2,4-D (ISO); 2,4-dichlorophenoxyacetic acid (94-75-7)	
LC50 - Fish [1]	82 mg/l (96 h, Salmo gairdneri, Literature study)
EC50 - Crustacea [1]	90 mg/l (48 h, Daphnia magna, Literature study)
ErC50 algae	33,2 mg/l (Other, 120 h, Selenastrum capricornutum, Experimental value, GLP)
2-methylpentane-2,4-diol (107-41-5)	
LC50 - Fish [1]	9450 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Flow-through system, Fresh water, Experimental value)
EC50 - Crustacea [1]	5410 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
ErC50 algae	> 429 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value)

12.2. Persistence and degradability

2,4-D (ISO); 2,4-dichlorophenoxyacetic acid (94-75-7)	
Persistence and degradability	Biodegradable in the soil. Inhibition of nitrification. Readily biodegradable in water.
2-methylpentane-2,4-diol (107-41-5)	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0,02 g O ₂ /g substance
Chemical oxygen demand (COD)	2,2 g O ₂ /g substance
ThOD	2,3 g O ₂ /g substance
BOD (% of ThOD)	0,01
calcium dihydrogen phosphate (7758-23-8)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

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12.3. Bioaccumulative potential

2,4-D (ISO); 2,4-dichlorophenoxyacetic acid (94-75-7)	
BCF - Fish [1]	< 10 (Other, 3 day(s), Leuciscus idus, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	2,58 – 2,83 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
dicamba (ISO); 2,5-dichloro-6-methoxybenzoic acid; 3,6-dichloro-2-methoxybenzoic acid (1918-00-9)	
Partition coefficient n-octanol/water (Log Pow)	2,21
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
2-methylpentane-2,4-diol (107-41-5)	
Partition coefficient n-octanol/water (Log Pow)	0,58 (QSAR)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
calcium dihydrogen phosphate (7758-23-8)	
Bioaccumulative potential	No bioaccumulation data available.

12.4. Mobility in soil

2,4-D (ISO); 2,4-dichlorophenoxyacetic acid (94-75-7)	
Ecology - soil	No (test) data on mobility of the substance available.
dicamba (ISO); 2,5-dichloro-6-methoxybenzoic acid; 3,6-dichloro-2-methoxybenzoic acid (1918-00-9)	
Ecology - soil	Not toxic to bees.
2-methylpentane-2,4-diol (107-41-5)	
Surface tension	0,033 N/m
Ecology - soil	Highly mobile in soil.

12.5. Results of PBT and vPvB assessment

Component	
2-methylpentane-2,4-diol (107-41-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
2,4-D (ISO); 2,4-dichlorophenoxyacetic acid (94-75-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated

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ADR	IMDG	IATA	ADN	RID
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

15.1.2. National regulations

Germany

Water hazard class (WGK) : WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1)

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Storage class (LGK, TRGS 510) : LGK 13 - Non-combustible solids

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15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

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Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
EUH208	Contains 2,4-D (ISO); 2,4-dichlorophenoxyacetic acid. May produce an allergic reaction.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H302	Harmful if swallowed.
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.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.