

**Trade name:** KARMA**Product no.:** AS 203 C1269 UK**Current version :** 3.0.2, issued: 24.01.2022**Replaced version:** 3.0.1, issued: 20.01.2022**Region:** GB**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name****KARMA****1.2 Relevant identified uses of the substance or mixture and uses advised against****Relevant identified uses of the substance or mixture**

Plant protection product

Fungicide

**Uses advised against**

No data available.

**1.3 Details of the supplier of the safety data sheet****Address**

Certis Europe B.V. - United Kingdom

Suite 5, 3 Riverside

Granta Park - Great Abington

Cambridgeshire CB21 6AD

United Kingdom

Telephone no. +44 (0) 1223 894 261

Fax no. +44 (0)1223 891210

e-mail info@certiseurope.co.uk - www.certiseurope.co.uk

**Advice on Safety Data Sheet**

certis@certiseurope.co.uk

**1.4 Emergency telephone number**

Carechem 24 GB: +44 870 190 6777

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification information**

Classification and labelling are based on toxicological studies performed on the product (mixture).

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:

Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP

Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

This product does not meet the classification criteria given in the Regulation (EC) No 1272/2008 (CLP).

**2.2 Label elements****Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)****Hazard pictograms**

-

**Signal word**

-

**Hazard statement(s)**

-

**Hazard statements (EU)**

EUH401

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

**Precautionary statement(s)**

P260

Do not breathe dust.

P262

Do not get in eyes, on skin, or on clothing.

P501

Dispose of contents/ container to a licensed hazardous waste disposal contractor or

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collection site except for triple rinsed empty clean containers which can be disposed of as non-hazardous waste.

**Labelling information**

The labelling (EU hazard statements) meets the criteria of annex II of Directive (EC) Nr. 1272/2008 (CLP).

**2.3 Other hazards**

the dust may be irritating to the respiratory system.

PBT assessment

No data available.

vPvB assessment

No data available.

**SECTION 3: Composition/information on ingredients****3.1 Substances**

Not applicable. The product is not a substance.

**3.2 Mixtures****Chemical characterization**

Potassium hydrogen carbonate 85% (SP)

**Hazardous ingredients**

No	Substance name	Additional information	
	CAS / EC / Index / REACH no	Classification (EC) 1272/2008 (CLP)	Concentration
			%
1	<b>potassium-hydrogencarbonate</b>		
	298-14-6 206-059-0 - -	-	>= 70.00 - < 90.00 wt%
2	<b>sodium-dodecyl-sulfate</b>		
	151-21-3 205-788-1 - 01-2119489461-32	Flam. Sol. 2; H228 Acute Tox. 4; H332 Acute Tox. 4; H302 STOT SE 3; H335 Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 3; H412	< 15.00 wt%
3	<b>Docusate-sodium</b>		
	577-11-7 209-406-4 - 01-2119491296-29	Eye Dam. 1; H318 Skin Irrit. 2; H315	< 15.00 wt%

Full Text for all H-phrases and EUH-phrases: pls. see section 16

No	Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)
2	-	Eye Irrit. 2; H319: C >= 10% Eye Dam. 1; H318: C >= 20%	-	-

**SECTION 4: First aid measures****4.1 Description of first aid measures****General information**

If medical advice is needed, have product container or label at hand.

**After inhalation**

Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

**After skin contact**

Take off contaminated clothing.

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Wash with plenty of water.

If skin irritation occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

**After eye contact**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

**After ingestion**

Rinse mouth. Call a POISON CENTER or doctor/physician.

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

No data available.

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

No data available.

**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing media**

Water spray jet; Dry chemical extinguisher; Foam; Alcohol-resistant foam

**Unsuitable extinguishing media**

High power water jet

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

In the event of fire, the following can be released: Carbon dioxide (CO<sub>2</sub>); Carbon monoxide (CO); Sulphur oxides (SxO<sub>y</sub>); Potassium oxide

**5.3 Advice for firefighters**

Fire-fighting operations, rescue and clearing work under effect of combustion and smoulder gases just may be done with breathing apparatus. Run-off water from fire fighting must not be discharged into drains or enter surface water. Wear protective clothing.

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation.

**For emergency responders**

Personal protective equipment (PPE) - see section 8.

**6.2 Environmental precautions**

Do not discharge into the drains/surface waters/groundwater. Do not discharge uncontrolled into the subsoil/soil.

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

Collect mechanically. When collected, handle material as described under the section heading "Disposal considerations".

**6.4 Reference to other sections**

No data available.

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

No special measures necessary if stored and handled as prescribed. Do not inhale dust. Provide good ventilation at the work area (local exhaust ventilation, if necessary).

**General protective and hygiene measures**

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Wash hands before breaks and after work. Provide eye wash fountain in work area. Do not inhale dust/fumes/aerosols.

**Advice on protection against fire and explosion**

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No special measures necessary.

**7.2 Conditions for safe storage, including any incompatibilities****Technical measures and storage conditions**

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

**Requirements for storage rooms and vessels**

Store product in closed containers.

**Incompatible products**

Do not store together with foodstuffs. Substances to be avoided, see section 10.

**7.3 Specific end use(s)****Industry solution**

Always read the label and product information before use.

**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****DNEL, DMEL and PNEC values****DNEL values (worker)**

No	Substance name			CAS / EC no	
	Route of exposure	Exposure time	Effect	Value	
1	<b>sodium-dodecyl-sulfate</b>			<b>151-21-3</b> <b>205-788-1</b>	
	dermal	Long term (chronic)	systemic	4060	mg/kg
	inhalative	Long term (chronic)	systemic	285	mg/m <sup>3</sup>
2	<b>Docusate-sodium</b>			<b>577-11-7</b> <b>209-406-4</b>	
	dermal	Long term (chronic)	systemic	267.86	mg/kg/day
	inhalative	Long term (chronic)	systemic	1889.1	mg/m <sup>3</sup>

**DNEL value (consumer)**

No	Substance name			CAS / EC no	
	Route of exposure	Exposure time	Effect	Value	
1	<b>sodium-dodecyl-sulfate</b>			<b>151-21-3</b> <b>205-788-1</b>	
	oral	Long term (chronic)	systemic	24	mg/kg
	dermal	Long term (chronic)	systemic	2440	mg/kg
	inhalative	Long term (chronic)	systemic	85	mg/m <sup>3</sup>
2	<b>Docusate-sodium</b>			<b>577-11-7</b> <b>209-406-4</b>	
	oral	Long term (chronic)	systemic	17.86	mg/kg/day
	dermal	Long term (chronic)	systemic	160.71	mg/kg/day
	inhalative	Long term (chronic)	systemic	599.01	mg/m <sup>3</sup>

**PNEC values**

No	Substance name		CAS / EC no	
	ecological compartment	Type	Value	
1	<b>sodium-dodecyl-sulfate</b>		<b>151-21-3</b> <b>205-788-1</b>	
	water	fresh water	0.176	mg/L
	water	marine water	0.0176	mg/L
	water	fresh water sediment	6.97	mg/kg
	water	marine water sediment	0.697	mg/kg
	soil	-	1.29	mg/L
	sewage treatment plant	-	1.35	mg/L
2	<b>Docusate-sodium</b>		<b>577-11-7</b> <b>209-406-4</b>	
	water	fresh water	0.18	mg/L
	water	Aqua intermittent	0.152	mg/L

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water	marine water	0.018	mg/L
water	fresh water sediment	17.789	mg/kg dry weight
water	marine water sediment	1.779	mg/kg dry weight
soil	-	1.04	mg/kg dry weight
sewage treatment plant	-	12.2	mg/L

## 8.2 Exposure controls

### Appropriate engineering controls

No data available.

### Personal protective equipment

#### Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of dust, vapour and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

#### Eye / face protection

Safety glasses (EN 166)

#### Hand protection

In case of intensive contact, wear protective gloves (EN 374). Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

#### Other

Normal chemical work clothing.

#### Environmental exposure controls

No data available.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>State of aggregation</b>	
solid	
<b>Form/Colour</b>	
Powder	
white	
<b>Odour</b>	
odourless	
<b>pH value</b>	
Value	8.33
Concentration	1 %
Method	CIPAC MT 75.3
Source	Manufacturer
<b>Boiling point / boiling range</b>	
No data available	
<b>Melting point/freezing point</b>	
Value	> 156 °C
Reference substance	CAS 298-14-6
Source	Manufacturer
Comments	Decomposes without melting
<b>Decomposition temperature</b>	

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Value	>	156	°C
Reference substance	CAS 298-14-6		
Source	Manufacturer		

**Flash point**

No data available

**Ignition temperature**

No data available

**Oxidising properties**

not oxidizing

**Explosive properties**

Product does not present an explosion hazard.

**Flammability**

not highly flammable

Source Manufacturer

**Lower explosion limit**

No data available

**Upper explosion limit**

No data available

**Vapour pressure**

No data available

**Relative vapour density**

No data available

**Relative density**

No data available

**Density**

Value	1	g/cm <sup>3</sup>
Reference substance	CAS 298-14-6	
Source	Manufacturer	

**Bulk density**

Value	0.70	g/ml
Method	CIPAC MT 186	
Source	Manufacturer	

**Packed bulk density**

Value	0.78	g/ml
Method	CIPAC MT 186	
Source	Manufacturer	

**Solubility in water**

Value	332	g/l
Reference temperature	20	°C
Reference substance	CAS 298-14-6	
Source	Manufacturer	

**Solubility**

No data available

**Partition coefficient n-octanol/water (log value)**

No data available

**Viscosity**

No data available

**Particle characteristics**

No data available

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Surface tension: 25.2 mN/m (2.5% w/v at 20.1°C)

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

The product is stable under normal storage and handling conditions.

**10.2 Chemical stability**

Stable under recommended storage and handling conditions (See section 7).

**10.3 Possibility of hazardous reactions**

Dangerous reactions are not to be expected when handling product according to its intended use.

**10.4 Conditions to avoid**

Moisture.

**10.5 Incompatible materials**

Acids

**10.6 Hazardous decomposition products**

Thermal decomposition may emit carbon dioxide, oxides of sulphur and potassium oxide.

**SECTION 11: Toxicological information****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

<b>Acute oral toxicity</b>			
No	Product Name		
1	KARMA		
LD50		2900	mg/kg/bw
Species	rat (male)		
Source	Manufacturer		
LD50		2600	mg/kg/bw
Species	rat (female)		
Source	Manufacturer		

<b>Acute dermal toxicity</b>			
No	Product Name		
1	KARMA		
LD50	>	5000	mg/kg
Species	rabbit		
Source	Manufacturer		

<b>Acute inhalational toxicity</b>			
No	Product Name		
1	KARMA		
LC50	>	2.3	mg/m <sup>3</sup>
Duration of exposure		4	h
State of aggregation	Dust/mist		
Species	rat		
Source	Manufacturer		
Comments	highest checkable concentration		

<b>Skin corrosion/irritation</b>			
No	Product Name		
1	KARMA		
Species	rabbit		
Source	Manufacturer		
Evaluation	non-irritant		

**Serious eye damage/irritation**

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No	Product Name
1	KARMA
Species	rabbit
Source	Manufacturer
Evaluation	slightly irritant
Evaluation/classification	Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation	
No	Product Name
1	KARMA
Route of exposure	Skin
Method	Buehler
Source	Manufacturer
Evaluation	non-sensitizing

Germ cell mutagenicity
No data available

Reproduction toxicity
No data available

Carcinogenicity
No data available

STOT - single exposure
No data available

STOT - repeated exposure
No data available

Aspiration hazard
No data available

**11.2 Information on other hazards****Endocrine disrupting properties**

No data available.

**Other information**

No data available.

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

Toxicity to fish (acute)			
No	Product Name		
1	KARMA		
LC50	>	1200	mg/l
Duration of exposure		96	h
Species	Rainbow trout		
Reference substance	CAS 298-14-6		
Source	Manufacturer		
LC50	>	1200	mg/l
Duration of exposure		96	h
Species	Bluegill		
Reference substance	CAS 298-14-6		
Source	Manufacturer		

Toxicity to fish (chronic)
No data available

Toxicity to Daphnia (acute)			
No	Product Name		
1	KARMA		
EC50		397	mg/l



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Duration of exposure	48	h
Species	Daphnia magna	
Source	Manufacturer	
EC50	317	mg/l
Duration of exposure	48	h
Species	Chironomus riparius	
Source	Manufacturer	
EC50	>	860
Duration of exposure	48	h
Species	Daphnia magna	
Reference substance	CAS 298-14-6	
Source	Manufacturer	

**Toxicity to Daphnia (chronic)**

No data available

**Toxicity to algae (acute)**

No	Product Name		
1	KARMA		
ErC50	>	100.9	mg/l
Duration of exposure		72	h
Species	Pseudokirchneriella subcapitata		
Source	Manufacturer		
EC50	>	100.9	mg/l
Duration of exposure		72	h
Species	Pseudokirchneriella subcapitata		
Source	Manufacturer		

**Toxicity to algae (chronic)**

No data available

**Bacteria toxicity**

No	Substance name	CAS no.	EC no.
1	sodium-dodecyl-sulfate	151-21-3	205-788-1
EC50		135	mg/l
Duration of exposure		3	h
Species	activated sludge		
Method	OECD		
Source	ECHA		

**12.2 Persistence and degradability**

Biodegradability			
No	Substance name	CAS no.	EC no.
1	potassium-hydrogencarbonate	298-14-6	206-059-0
Source	Manufacturer		
Evaluation	not persistent		
2	sodium-dodecyl-sulfate	151-21-3	205-788-1
Type	CO2 formation in % of theoretical value		
Value		95	%
Duration		28	day(s)
Method	OECD 301 B		
Source	ECHA		
Evaluation	readily biodegradable		
3	Docusate-sodium	577-11-7	209-406-4
Type	aerobic biodegradation		
Value		91.2	%
Duration		28	day(s)
Method	OECD 310		
Source	ECHA		
Evaluation	readily biodegradable		

**12.3 Bioaccumulative potential**

Bioconcentration factor (BCF)
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No	Substance name	CAS no.	EC no.
1	sodium-dodecyl-sulfate	151-21-3	205-788-1
BCF		2.1	
Species		Cyprinus carpio	
Source		ECHA	

**12.4 Mobility in soil**

No data available.

**12.5 Results of PBT and vPvB assessment**

Results of PBT and vPvB assessment	
PBT assessment	No data available.
vPvB assessment	No data available.

**12.6 Endocrine disrupting properties**

No data available.

**12.7 Other adverse effects**

No data available.

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

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

**Packaging**

Residues must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

**SECTION 14: Transport information****14.1 Transport ADR/RID/ADN**

The product is not subject to ADR/RID/ADN regulations.

**14.2 Transport IMDG**

The product is not subject to IMDG regulations.

**14.3 Transport ICAO-TI / IATA**

The product is not subject to ICAO-TI / IATA regulations.

**14.4 Other information**

No data available.

**14.5 Environmental hazards**

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

**14.6 Special precautions for user**

No data available.

**14.7 Maritime transport in bulk according to IMO instruments**

Not relevant

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulations****Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)**

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

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According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.

**Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES**

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances subject to restriction as listed in Annex XVII of the REACH regulation (EC) 1907/2006.

**Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances**

This product is not subject to Part 1 or 2 of Annex I.

**Regulation (EC) No 1107/2009 concerning the placing of plant protection products on the market**

Regulation (EU) No 547/2011 implementing Regulation (EC) No 1107/2009 as regards labelling requirements for plant protection products

**Annex III**

SP1	Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).
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**15.2 Chemical safety assessment**

A chemical safety assessment has not been carried out for this mixture.

**SECTION 16: Other information****Sources of key data used to compile the data sheet:**

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding section.

**Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)**

H228	Flammable solid.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

**Creation of the safety data sheet**

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This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

Alterations/supplements:

Alterations to the previous edition are marked in the left-hand margin.

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