Trade name: KARMA
Product no.: AS 203 C1269 UK
Current version : 4.0.4, issued: 28.06.2023 **Replaced version:** 4.0.3, issued: 22.06.2023 **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 Belchim B.V. (EU)
Stadsplateau 16
3521 AZ Utrecht - Nederland

Telephone no.	0031 (0)30 200 1200
Fax no.	0031 (0)30 310 0241
e-mail	info@certisbelchim.com

Advice on Safety Data Sheet
www.certisbelchim.com

Identification of the supplier

Address
Certis Belchim B.V. - United Kingdom
Suite 5, 3 Riverside, Granta Park - Great Abington
Cambridgeshire CB21 6AD
United Kingdom

Telephone no.	0044 (0) 1223 652500
Fax no.	0044 (0)1223 891210
e-mail	info.uk@certisbelchim.com - www.certisbelchim.co.uk

1.4 Emergency telephone number

Carechem 24 EU: +44 1235 239670

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 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	**potassium-hydrogencarbonate**			
	298-14-6 206-059-0 - -	-	>= 70.00 - < 90.00	wt%
2	**sodium-dodecyl-sulfate**			
	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	**Docusate-sodium**			
	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.
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 (CO2); Carbon monoxide (CO); Sulphur oxides (SxOy); 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
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	**sodium-dodecyl-sulfate**			**151-21-3** **205-788-1**	
	dermal	Long term (chronic)	systemic	4060	mg/kg
	inhalative	Long term (chronic)	systemic	285	mg/m³
2	**Docusate-sodium**			**577-11-7** **209-406-4**	
	dermal	Long term (chronic)	systemic	267.86	mg/kg/day
	inhalative	Long term (chronic)	systemic	1889.1	mg/m³

DNEL value (consumer)

No	Substance name			CAS / EC no	
	Route of exposure	Exposure time	Effect	Value	
1	**sodium-dodecyl-sulfate**			**151-21-3** **205-788-1**	
	oral	Long term (chronic)	systemic	24	mg/kg
	dermal	Long term (chronic)	systemic	2440	mg/kg
	inhalative	Long term (chronic)	systemic	85	mg/m³
2	**Docusate-sodium**			**577-11-7** **209-406-4**	
	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/m³

PNEC values

No	Substance name		CAS / EC no
	ecological compartment	Type	Value
1	**sodium-dodecyl-sulfate**		**151-21-3** **205-788-1**

	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	**Docusate-sodium**		**577-11-7 209-406-4**	
	water	fresh water	0.18	mg/L
	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

State of aggregation
solid

Form
Powder

Colour
white

Odour
odourless

pH value		
Value	8.33	
Concentration	1	%
Method	CIPAC MT 75.3	

Source	Manufacturer

Boiling point / boiling range
No data available

Melting point/freezing point			
Value	>	156	°C
Reference substance	CAS 298-14-6		
Source	Manufacturer		
Comments	Decomposes without melting		

Decomposition temperature			
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/cm³
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	**Substance name**	**CAS no.**		**EC no.**
1	**sodium-dodecyl-sulfate**	**151-21-3**		**205-788-1**
log Pow	<=	-2.03		
Reference temperature		20	°C	
Method	OECD 107			
Source	ECHA			
2	**Docusate-sodium**	**577-11-7**		**209-406-4**
log Pow		1.998		
Reference temperature		20	°C	
with reference to	pH = 5			
Method	calculated			
Source	ECHA			

Kinematic viscosity
No data available

Particle characteristics
No data available

9.2 Other information

Other information
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

Acute oral toxicity			
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		

Acute dermal toxicity	
No	**Product Name**

1	KARMA		
LD50	>	5000	mg/kg
Species	rabbit		
Source	Manufacturer		

Acute inhalational toxicity			
No	Product Name		
1	KARMA		
LC50	>	2.3	mg/m³
Duration of exposure		4	h
State of aggregation	Dust/mist		
Species	rat		
Source	Manufacturer		
Comments	highest checkable concentration		

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

Serious eye damage/irritation	
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	Substance name	CAS no.	EC no.
1	Docusate-sodium	577-11-7	209-406-4
Type of examination	in vitro gene mutation study in bacteria		
Species	S. typhimurium TA 1535, TA 1537, TA 98 and TA 100S. typhimurium TA 1535, TA 1537, TA 98, TA 100, TA 102		
Method	OECD 471		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
Route of exposure	oral		
Type of examination	In vivo mammalian somatic cell study: cytogenicity / erythrocyte micronucleus		
Species	rat		
Method	OECD 474		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

Reproduction toxicity			
No	Substance name	CAS no.	EC no.
1	Docusate-sodium	577-11-7	209-406-4
Route of exposure	oral		
Type of examination	three-generation reproductive toxicity		
Species	rat		
Method	OECD 416		
Source	ECHA		

Evaluation/classification	Based on available data, the classification criteria are not met.		
Route of exposure	oral		
NOAEL		1074	mg/kg bw/d
Type of examination	Prenatal Developmental Toxicity Study		
Species	rat		
Method	OECD 414		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

Carcinogenicity
No data available

STOT - single exposure
No data available

STOT - repeated exposure			
No	**Substance name**	**CAS no.**	**EC no.**
1	**Docusate-sodium**	**577-11-7**	**209-406-4**

Route of exposure	oral		
NOAEL	>	1000	mg/kg bw/d
Species	rat		
Method	OECD 408		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

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
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	mg/l
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		
2	**Docusate-sodium**	**577-11-7**	**209-406-4**
EC50		164	mg/l
Duration of exposure		16.5	h
Species	Pseudomonas putida		
Method	DIN 38412 T.8		
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

Partition coefficient n-octanol/water (log value)				
No	**Substance name**	**CAS no.**		**EC no.**
1	**sodium-dodecyl-sulfate**	**151-21-3**		**205-788-1**
log Pow	<=	-2.03		
Reference temperature		20	°C	
Method	OECD 107			
Source	ECHA			
2	**Docusate-sodium**	**577-11-7**		**209-406-4**
log Pow		1.998		
Reference temperature		20	°C	
with reference to	pH = 5			
Method	calculated			
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.

REACH candidate list of substances of very high concern (SVHC) for authorisation
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).

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.

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