Trade name: KRONES multicroma W 2201

Version: 3/GB Replaces Version: 2 / GB Date revised: 12.09.2018 Print date: 20.12.18

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

1.1. Product identifier

KRONES multicroma W 2201

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

Use of the substance/preparation

- Digital ink	•
Identified Uses	
SU3	Industrial uses: Uses of substances as such or in preparations at industrial sites
PROC1	Use in closed process, no likelihood of exposure
PROC2	Use in closed, continuous process with occasional controlled exposure
PROC3	Use in closed batch process (synthesis or formulation)
PROC4	Use in batch and other process (synthesis) where opportunity for exposure arises
PROC5	Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)
PROC8a	Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
PROC8b	Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
PROC10	Roller application or brushing
PROC11	Non industrial spraying
PROC13	Treatment of articles by dipping and pouring
PROC19	Hand-mixing with intimate contact and only PPE available
ERC4	Industrial use of processing aids in processes and products, not becoming part of articles
ERC8a	Wide dispersive indoor use of processing aids in open systems
ERC8d	Wide dispersive outdoor use of processing aids in open systems

Uses advised against

Consumer uses: Private households (= general public = consumers)

1.3. Details of the supplier of the safety data sheet

Address

SU21

KIC KRONES Internationale Cooperationsgesellschaft mbH Böhmerwaldstraße 5 93073 Neutraubling Germany Telephone no. +49 9401 70-3020 Fax no. +49 9401 70-3696 Information provided quality.management@kic-krones.com by / telephone

1.4. Emergency telephone number

For Hazardous Materials (or Dangerous Goods) Incidents – Spill, Leak, Fire, Exposure, or Accident – call CHEMTREC Day or Night. Within USA and Canada: 1-800-424-9300. Outside USA and Canada: +1 703-741-5970 (collect calls accpeted).

SECTION 2: Hazards identification ***

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008) H318

Eye Dam. 1

Safety data sheet in accordance with regulation (EC) No 1907/2006

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Skin Sens. 1A	H317
Repr. 2	H361fd
STOT RE 2	H373
Aquatic Chronic 2	H411
Skin Irrit. 2	H315

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms



Signal word

Danger

Hazard statements ***

nazara stateme	
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H373	May cause damage to organs through prolonged or repeated exposure:
H411	Toxic to aquatic life with long lasting effects.
H315	Causes skin irritation.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
Precautionary s	statements
P201	Obtain special instructions before use.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact P305+P351+P338 lenses, if present and easy to do. Continue rinsing. P310

Immediately call a POISON CENTER or doctor.

Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)

contains

4-(1-Oxo-2-propenyl)-morpholine;Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate;2-Phenoxyethyl acrylate;(octahydro-4,7-methano-1H-indenediyl)bis(methylene)

diacrylate;Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide;Dipropylene glycol diacrylate; Glycerol, propoxylated, esters with acrylic acid; Reaction mass of decyl acrylate and octyl acrylate

2.3. Other hazards

No special hazards have to be mentioned.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

UV - curing ink based on reactive acrylates

Hazardous ingredients

2-Phenoxyethyl acrylate

48145-04-6				
256-360-6				
01-2119980	532-35			
>=	25	<	50	%
	256-360-6 01-2119980	01-2119980532-35	256-360-6 01-2119980532-35	256-360-6 01-2119980532-35

name: KRONES multi	croma W 2201				
		Version:	3 / GB		Date revised: 12.09.2
		Replaces	Version	: 2/GB	Print date: 20.1
Classification (Regu	lation (EC) No. 1	272/2008)			
	Skin Sens. 1A	\	H317		
	Aquatic Chror	nic 2	H411		
	Repr. 2		H361d		
Diphenyl(2,4,6-trime		sphine oxi	de		
CAS No. EINECS no.	75980-60-8 278-355-8				
Registration no.	01-21199722	95-29			
Concentration	>=	10	<	25	%
Classification (Regu	lation (EC) No. 1	272/2008)			
、 O	Repr. 2		H361f		
	Skin Sens. 1E		H317		Route of exposure: dermal
	Aquatic Chror	NC 2	H411		
4-(1-Oxo-2-propenyl CAS No.					
EINECS no.	5117-12-4 418-140-1				
Concentration	>=	10	<	25	%
Classification (Regu	Acute Tox. 4	272/2008)	H302		
	Skin Sens. 1		H317		
	Eye Dam. 1		H318		
	STOT RE 2		H373		
Exo-1,7,7-trimethylb		t-2-yl acryla	ate		
CAS No.					
EINECS no. Registration no.	227-561-6 01-21199578	62-25			
Concentration	>=	2,5	<	10	%
Classification (Regu	Skin Irrit. 2	272/2008)	H315		
	Eye Irrit. 2		H319		
	STOT SE 3		H335		
	Aquatic Chror		H410		
	Skin Sens. 1E Aquatic Acute		H317 H400		
(aatabudra 4.7 math				dioonuloto	
(octahydro-4,7-meth CAS No.	42594-17-2	iyi)bis(met	iryiene)	ulaci ylate	
EINECS no.	255-901-3				
Registration no.	01-21200511			10	
Concentration	>=	2,5	<	10	%
Classification (Regu					
	Skin Sens. 1E Aquatic Chror		H317 H411		
Reaction mass of de EINECS no.	cyl acrylate and 911-295-9	octyl acry	late		
	311-230-3				
Registration no.	01-21207383	94-50			

name: KRONES mult	icroma W 2201						
		Version:	3 / GB			Date revised	d: 12.09.20
		Replaces	Version	2 / GB		Print	date: 20.12.
Classification (Reg	ulation (EC) No. 12	72/2008)					
Classification (reg	Skin Irrit. 2	.12/2000)	H315				
	Eye Irrit. 2		H319				
	Skin Sens. 1B		H317				
	STOT SE 3		H335				
	Aquatic Acute	1	H400				
	Aquatic Chron		H411				
Dipropylene glycol	diacrylate						
CAS No.	57472-68-1						
EINECS no.	260-754-3						
Registration no.							
Concentration	>=	0,1	<	1	%		
Classification (Reg		272/2008)					
	Skin Irrit. 2		H315				
	Eye Dam. 1		H318				
	Skin Sens. 1		H317				
Glycerol, propoxyla		crylic acid					
CAS No.	52408-84-1						
EINECS no.	500-114-5						
Registration no.					0/		
Concentration	>=	0,1	<	1	%		
Classification (Reg		272/2008)	11040				
	Eye Irrit. 2		H319				
	Skin Sens. 1		H317				
2,6-Di-tert-butyl-p-c							
CAS No.	128-37-0						
EINECS no.	204-881-4	2.46					
Registration no. Concentration	01-211956511			0.25	0/		
Concentration	>=	0,1	<	0,25	%		
Classification (Reg			LI400				
	Aquatic Acute Aquatic Chron		H400 H410				

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious place in recovery position and seek medical advice.

After inhalation

Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, administer artificial respiration.

After skin contact

Remove contaminated clothing. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners. In case of accidental skin contact avoid concurrent exposure to the sun or other sources of UV light, which may increase the sensitivity of skin.

After eye contact

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Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

After ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed Until now no symptoms known so far.

4.3. Indication of any immediate medical attention and special treatment needed Hints for the physician / treatment

Treat symptomatically

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Recommended: alcohol resistant foam, CO2-blanket, powders, water spray/mist, Not be used for safety reasons: 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); dense black smoke; Nitrogen oxides (NOx)

5.3. Advice for firefighters

Special protective equipment for fire-fighting

Cool closed containers exposed to fire with water. Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Exclude sources of ignition and ventilate the area. Avoid breathing vapours. Refer to protective measures listed in Sections 7 and 8.

6.2. Environmental precautions

Do not allow to enter drains or waterways. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). Clean preferably with a detergent - avoid use of solvents.

6.4. Reference to other sections

Information regarding Safe handling, see Section 7. Information regarding personal protective measures, see Section 8. Information regarding waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Skin and eye contact constitutes the principal hazard. Persons with a history of skin sensitisation problems should not be employed in any process in which this mixture is used. Use only in well-ventilated areas. Isolate from sources of heat, sparks and open flame. Avoid skin and eye contact. Avoid the inhalation of dust, particulates and spray mist arising from the application of this mixture. Avoid inhalation of dust from sanding. Smoking, eating and drinking shall be prohibited in application area. For

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Always keep in containers of s work laws. Do not allow to ent		oly with the health and safety at
-	erature class / Ignition group / Du B (Combustible liquid substances)	ist explosion class
7.2. Conditions for safe storage	ge, including any incompatibili	ties
Requirements for storage ro		
Store in accordance with nation		
Hints on storage assembly	0	
U I	ents, from strongly alkaline and strongly	acid materials.
Further information on stora	••• ••	
Observe label precautions. Sto sources of heat and direct sur	ore between 15 and 30 °C in a dry, well nlight. Keep container tightly closed. Kee rised access. Containers which are ope	ep away from sources of ignition.
7.3. Specific end use(s) Digital ink		
	4 I. /	-4-4
SECTION 8: Exposure con	trols/personal protection *	***
8.1. Control parameters		
Derived No/Minimal Effect L	evels (DNEL/DMEL)	
Exo-1,7,7-trimethylbicyclo[2.2	11hept-2-vl acrylate	
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	oral	
Mode of action	Systemic effects	
Concentration	0,83	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	1,39	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	0,83	mg/kg/d
2 Phonoxyothyl convloto		
2-Phenoxyethyl acrylate	Derived No Effect Level (DNEL)	
Type of value	Worker	
Type of value Reference group		
Reference group	Long term	
Reference group Duration of exposure	Long term inhalative	
Reference group	inhalative	
Reference group Duration of exposure Route of exposure		mg/m³
Reference group Duration of exposure Route of exposure Mode of action	inhalative Systemic effects	mg/m³

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Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	77	mg/m³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	3,5	mg/kg/d
Diphenyl(2,4,6-trimethylbe	nzovl)phosphine oxide	
Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure		
	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	1	mg/kg
Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	3,5	mg/m³
Predicted No Effect Conc Exo-1,7,7-trimethylbicyclo	2.2.1]hept-2-yl acrylate	
I VDE OT VAIUE	PNEC	
Type of value	PNEC Saltwater	
Туре	Saltwater	ma/l
		mg/l
Type Concentration Type of value	Saltwater 0,0 PNEC	mg/l
Type Concentration	Saltwater 0,0	mg/l
Type Concentration Type of value	Saltwater 0,0 PNEC	mg/l mg/l
Type Concentration Type of value Type Concentration	Saltwater 0,0 PNEC Water (intermittent release)	-
Type Concentration Type of value Type Concentration Type of value	Saltwater 0,0 PNEC Water (intermittent release) 0,007 PNEC	-
Type Concentration Type of value Type Concentration	Saltwater 0,0 PNEC Water (intermittent release) 0,007	-
Type Concentration Type of value Type Concentration Type of value Type Concentration	Saltwater 0,0 PNEC Water (intermittent release) 0,007 PNEC Freshwater 0,001	mg/l
Type Concentration Type of value Type Concentration Type of value Type Concentration Type of value	Saltwater 0,0 PNEC Water (intermittent release) 0,007 PNEC Freshwater 0,001 PNEC	mg/l
Type Concentration Type of value Type Concentration Type of value Type Concentration Type of value Type	Saltwater 0,0 PNEC Water (intermittent release) 0,007 PNEC Freshwater 0,001 PNEC Freshwater sediment	mg/l mg/l
Type Concentration Type of value Type Concentration Type of value Type Concentration Type of value	Saltwater 0,0 PNEC Water (intermittent release) 0,007 PNEC Freshwater 0,001 PNEC	mg/l
Type Concentration Type of value Type Concentration Type of value Type Concentration Type of value Type Concentration Type of value	Saltwater 0,0 PNEC Water (intermittent release) 0,007 PNEC Freshwater 0,001 PNEC Freshwater sediment 0,145 PNEC	mg/l mg/l
Type Concentration Type of value Type Concentration Type of value Type Concentration Type of value Type Concentration Type of value Type	Saltwater 0,0 PNEC Water (intermittent release) 0,007 PNEC Freshwater 0,001 PNEC Freshwater sediment 0,145 PNEC Marine sediment	mg/l mg/l mg/kg/d
Type Concentration Type of value Type Concentration Type of value Type Concentration Type of value Type Concentration Type of value	Saltwater 0,0 PNEC Water (intermittent release) 0,007 PNEC Freshwater 0,001 PNEC Freshwater sediment 0,145 PNEC	mg/l mg/l
Type Concentration Type of value Type Concentration Type of value Type Concentration Type of value Type Concentration Type of value Type Concentration	Saltwater 0,0 PNEC Water (intermittent release) 0,007 PNEC Freshwater 0,001 PNEC Freshwater sediment 0,145 PNEC Marine sediment	mg/l mg/l mg/kg/d
Type Concentration Type of value Type Concentration Type of value Type Concentration Type of value Type Concentration Type of value Type Concentration Type of value Type Concentration	Saltwater 0,0 PNEC Water (intermittent release) 0,007 PNEC Freshwater 0,001 PNEC Freshwater sediment 0,145 PNEC Marine sediment 0,015 PNEC	mg/l mg/l mg/kg/d
Type Concentration Type of value Type Concentration Type of value Type Concentration Type of value Type Concentration Type of value Type Concentration Type of value Type Concentration	Saltwater 0,0 PNEC Water (intermittent release) 0,007 PNEC Freshwater 0,001 PNEC Freshwater sediment 0,145 PNEC Marine sediment 0,015 PNEC Marine Sediment 0,015	mg/l mg/kg/d mg/kg/d
Type Concentration Type of value Type Concentration Type of value Type Concentration Type of value Type Concentration Type of value Type Concentration Type of value Type Concentration	Saltwater 0,0 PNEC Water (intermittent release) 0,007 PNEC Freshwater 0,001 PNEC Freshwater sediment 0,145 PNEC Marine sediment 0,015 PNEC Marine sediment 0,015	mg/l mg/l mg/kg/d
Type Concentration Type of value Type Concentration Type of value Type Concentration Type of value Type Concentration Type of value Type Concentration Type of value Type Concentration	Saltwater 0,0 PNEC Water (intermittent release) 0,007 PNEC Freshwater 0,001 PNEC Freshwater sediment 0,145 PNEC Marine sediment 0,015 PNEC Marine Sediment 0,015	mg/l mg/kg/d mg/kg/d
Type Concentration Type of value Type Concentration Type of value Type Concentration Type of value Type Concentration Type of value Type Concentration Type of value Type Concentration	Saltwater 0,0 PNEC Water (intermittent release) 0,007 PNEC Freshwater 0,001 PNEC Freshwater sediment 0,145 PNEC Marine sediment 0,015 PNEC Marine sediment 0,015	mg/l mg/kg/d mg/kg/d

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2-Phenoxyethyl acrylate		
Type of value	PNEC Froshwator	
Type Concentration	Freshwater	
Concentration	0,002	mg/l
Type of value	PNEC	
Туре	Saltwater	
Concentration	0,0002	mg/l
		·····.
Type of value	PNEC	
Туре	Water (intermittent release)	
Concentration	0,0121	mg/l
		-
Type of value	PNEC	
Туре	Soil	
Concentration	0,006	mg/kg
Type of value	PNEC	
Туре	Marine sediment	-
Concentration	0,002	mg/kg
Tratic		
Type of value	PNEC Froshwater sodimont	
Type Concentration	Freshwater sediment 0,02	mg/kg
(octahydro-4,7-methano-1H- Type of value	-indenediyl)bis(methylene) diacrylate PNEC	ž
Type	Freshwater	
Concentration	1,6	μg/l
	.,~	ישא
Type of value	PNEC	
Туре	Saltwater	
Concentration	0,16	μg/l
Turno of volue	PNEC	
Type of value Type	Water (intermittent release)	
Concentration	16	μg/l
Olicentration	10	μ9/1
Type of value	PNEC	
Туре	Freshwater sediment	
Concentration	0,6576	mg/kg
Type of value	PNEC	
Туре	Marine sediment	
Concentration	0,06576	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	10	mg/l
Time of volue	PNEC	
Type of value	PNEC Soil	
Turno	2011	
Type Concentration	0,1306	mg/kg

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Туре	Soil	
Concentration	0,0557	mg/kg
Type of value	PNEC	
Туре	Freshwater	
Concentration	0,00353	mg/l
	PNEC	
Type of value		
Туре	Freshwater sediment	
Concentration	0,29	mg/kg
Type of value	PNEC	
Туре	Saltwater	
Concentration	0,000353	mg/l
Type of value	PNEC	
Type	Marine sediment	
Concentration	0,029	mg/kg
Type of value	PNEC	
Туре	Water (intermittent release)	
Concentration	0,0353	mg/l
Reaction mass of decvl	acrylate and octyl acrylate	
Type of value	PNEC	
Туре	Freshwater	
Concentration	0,1	ua/l
Concentration	0,1	µg/l
Type of value	PNEC	
Туре	Saltwater	
Concentration	0,01	μg/l
Type of value	PNEC	
Туре	Sewage treatment plant (STP)	
Concentration	100	mg/l
Type of value	PNEC	
Туре	Freshwater sediment	
Concentration	0,013	mg/kg
Type of value	PNEC	
Туре	Marine sediment	
Concentration	0,001	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	0,003	mg/kg
	0,000	···ə···ə

8.2. Exposure controls

Exposure controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

Respiratory protection

In situations where misting or flying may occur use appropriate certified respirators.

Hand protection

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There is no one glove maindividual or combination For prolonged or repeated	of chemicals.		Ū	inlimited resistance to any
Material thickness Breakthrough time	> 0,5 < 30	mm min		
PVC or rubber gloves are				
The breakthrough time mu				
replacement must be follo		e giove ma	nutacturer on l	use, storage, maintenance and
Gloves should be replace		e is any sig	n of damage to	the glove material.
Always ensure that gloves	s are free from defects	s and that t	hey are stored	
	•	d areas of th	ne skin, they sł	nould however not be applied
Eye protection				
Use safety eyewear desig	ned to protect agains	t splash of	liquids.	
Body protection	1		ı -	
Personnel should wear pr	otective clothing.			
	9			
Colour Odour	of acrylic mon	omers		
Odour threshold	Number of the second second			
Remarks	No data availa	able		
Remarks pH value				
Remarks pH value Remarks	No data availa Not applicable			
Remarks pH value Remarks Melting point	Not applicable)		
Remarks pH value Remarks Melting point Remarks)		
Remarks pH value Remarks Melting point Remarks Freezing point	Not applicable	d		
Remarks pH value Remarks Melting point Remarks Freezing point Remarks	Not applicable not determine not determine	d		
Remarks pH value Remarks Melting point Remarks Freezing point Remarks Initial boiling point and b	Not applicable not determine not determine poiling range	d		
Remarks pH value Remarks Melting point Remarks Freezing point Remarks Initial boiling point and k Value	Not applicable not determine not determine poiling range appr. 132	d d	°(2
Remarks pH value Remarks Melting point Remarks Freezing point Remarks Initial boiling point and b	Not applicable not determine not determine poiling range	d d hPa	۰(2
Remarks pH value Remarks Melting point Remarks Freezing point Remarks Initial boiling point and b Value Pressure	Not applicable not determine not determine poiling range appr. 132 1.013	d d hPa	٥(2
Remarks pH value Remarks Melting point Remarks Freezing point Remarks Initial boiling point and k Value Pressure Source	Not applicable not determine not determine poiling range appr. 132 1.013	d d hPa	٥(
Remarks pH value Remarks Melting point Remarks Freezing point Remarks Initial boiling point and k Value Pressure Source Flash point	Not applicable not determine not determine poiling range appr. 132 1.013 Literature valu	d d hPa ie		
Remarks pH value Remarks Melting point Remarks Freezing point Remarks Initial boiling point and k Value Pressure Source Flash point Value	Not applicable not determine not determine appr. 132 1.013 Literature valu > 100 ASTM D 6450	d d hPa ie		
Remarks pH value Remarks Melting point Remarks Freezing point Remarks Initial boiling point and k Value Pressure Source Flash point Value Method	Not applicable not determine not determine appr. 132 1.013 Literature valu > 100 ASTM D 6450	d d hPa le) (CCCFP)		
Remarks pH value Remarks Melting point Remarks Freezing point Remarks Initial boiling point and b Value Pressure Source Flash point Value Method Evaporation rate (ether =	Not applicable not determine not determine appr. 132 1.013 Literature valu > 100 ASTM D 6450 = 1) : not determine	d d hPa le) (CCCFP)		
Remarks pH value Remarks Melting point Remarks Freezing point Remarks Initial boiling point and b Value Pressure Source Flash point Value Method Evaporation rate (ether = Remarks Flammability (solid, gas)	Not applicable not determine not determine appr. 132 1.013 Literature valu > 100 ASTM D 6450 = 1) : not determine	d d hPa ie (CCCFP) d		
Remarks pH value Remarks Melting point Remarks Freezing point Remarks Initial boiling point and the Value Pressure Source Flash point Value Method Evaporation rate (ether = Remarks Flammability (solid, gas) Not applicable	Not applicable not determine not determine appr. 132 1.013 Literature valu > 100 ASTM D 6450 = 1) : not determine	d d hPa le (CCCFP) d		
Remarks pH value Remarks Melting point Remarks Freezing point Remarks Initial boiling point and k Value Pressure Source Flash point Value Method Evaporation rate (ether = Remarks Flammability (solid, gas) Not applicable Upper/lower flammability	Not applicable not determine not determine appr. 132 1.013 Literature valu > 100 ASTM D 6450 = 1) : not determine	d d hPa le (CCCFP) d		
Remarks pH value Remarks Melting point Remarks Freezing point Remarks Initial boiling point and k Value Pressure Source Flash point Value Method Evaporation rate (ether = Remarks Flammability (solid, gas) Not applicable Upper/lower flammability Remarks	Not applicable not determine not determine appr. 132 1.013 Literature valu > 100 ASTM D 6450 = 1) : not determine	d d hPa le (CCCFP) d s s d		

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Mal a	1.00	
Value Temperature	1,22 20 °C	g/cm³
Method	DIN EN ISO 2811	
Solubility in water		
Remarks	partially miscible	
Partition coefficient: n-oc	ctanol/water	
Remarks	Not applicable	
Ignition temperature		
Remarks	not determined	
Viscosity		
Remarks		
Remarks	not determined	
Explosive properties		
evaluation	no	
Oxidising properties		
evaluation	None known	
9.2. Other information		
Other information		
	s are approximate values and refer to the	used safety relevant component(s)
SECTION 10: Stability a	nd reactivity	
	<u>Ild Teactivity</u>	
10.1. Reactivity No hazardous reactions w	hen stored and handled according to pres	cribed instructions
	erials which are unstable under the follow	
This mixture contains mate (>50°C), strong UV source	erials which are unstable under the follow	
This mixture contains mate (>50°C), strong UV source 10.3. Possibility of hazardo	erials which are unstable under the follow es. Pus reactions	ing conditions: exposure to heat
This mixture contains mate (>50°C), strong UV source 10.3. Possibility of hazardo Keep away from free radic	erials which are unstable under the follow	ing conditions: exposure to heat
This mixture contains mate (>50°C), strong UV source 10.3. Possibility of hazardo Keep away from free radic 10.4. Conditions to avoid	erials which are unstable under the follow es. US reactions al initiators, peroxides, strong alkalis or re	ing conditions: exposure to heat eactive metals.
This mixture contains mate (>50°C), strong UV source 10.3. Possibility of hazardo Keep away from free radic 10.4. Conditions to avoid These could cause the pro-	erials which are unstable under the follow es. Pus reactions	ing conditions: exposure to heat eactive metals. entional contact with them should be
 This mixture contains mate (>50°C), strong UV source 10.3. Possibility of hazardo Keep away from free radic 10.4. Conditions to avoid These could cause the pro avoided. When exposed to 10.5. Incompatible material 	erials which are unstable under the follow es. Pus reactions ral initiators, peroxides, strong alkalis or re oduct to polymerise exothermically. Uninter o high temperatures may produce hazardo	ing conditions: exposure to heat eactive metals. entional contact with them should be ous decomposition products.
 This mixture contains mate (>50°C), strong UV source 10.3. Possibility of hazardo Keep away from free radic 10.4. Conditions to avoid These could cause the pro avoided. When exposed to 10.5. Incompatible material No hazardous reactions with the procession of the p	erials which are unstable under the follow es. Pus reactions ral initiators, peroxides, strong alkalis or re oduct to polymerise exothermically. Uninter o high temperatures may produce hazarde s hen stored and handled according to pres	ing conditions: exposure to heat eactive metals. entional contact with them should be ous decomposition products.
 This mixture contains mate (>50°C), strong UV source 10.3. Possibility of hazardo Keep away from free radic 10.4. Conditions to avoid These could cause the pro avoided. When exposed to 10.5. Incompatible material No hazardous reactions with the second s	erials which are unstable under the follow es. Pus reactions ral initiators, peroxides, strong alkalis or re oduct to polymerise exothermically. Uninter o high temperatures may produce hazarde s hen stored and handled according to pres	ing conditions: exposure to heat eactive metals. entional contact with them should be ous decomposition products. scribed instructions.
 This mixture contains mate (>50°C), strong UV source 10.3. Possibility of hazardo Keep away from free radic 10.4. Conditions to avoid These could cause the pro- avoided. When exposed to 10.5. Incompatible material No hazardous reactions wi 10.6. Hazardous decompos See chapter 5.2 (Firefighting) 	erials which are unstable under the follow es. Dus reactions al initiators, peroxides, strong alkalis or re- oduct to polymerise exothermically. Uninter b high temperatures may produce hazardo S hen stored and handled according to pres- Sition products ng measures - Special hazards arising from	ing conditions: exposure to heat eactive metals. entional contact with them should be ous decomposition products. scribed instructions.
 This mixture contains mate (>50°C), strong UV source 10.3. Possibility of hazardo Keep away from free radic 10.4. Conditions to avoid These could cause the pro- avoided. When exposed to 10.5. Incompatible material No hazardous reactions wi 10.6. Hazardous decompos See chapter 5.2 (Firefighting) 	erials which are unstable under the follow es. Dus reactions al initiators, peroxides, strong alkalis or re- oduct to polymerise exothermically. Uninter b high temperatures may produce hazardo S hen stored and handled according to pres- Sition products ng measures - Special hazards arising from Cal information	ing conditions: exposure to heat eactive metals. entional contact with them should be ous decomposition products. scribed instructions.
This mixture contains mate (>50°C), strong UV source 10.3. Possibility of hazardo Keep away from free radic 10.4. Conditions to avoid These could cause the pro- avoided. When exposed to 10.5. Incompatible material No hazardous reactions wi 10.6. Hazardous decompos See chapter 5.2 (Firefightin SECTION 11: Toxicologi	erials which are unstable under the follow es. Aus reactions al initiators, peroxides, strong alkalis or re- boduct to polymerise exothermically. Uninter bodies temperatures may produce hazardow S hen stored and handled according to present S hen stored and handled according to present S S S S S S S S	ing conditions: exposure to heat eactive metals. entional contact with them should be ous decomposition products. scribed instructions.
This mixture contains mate (>50°C), strong UV source 10.3. Possibility of hazardo Keep away from free radic 10.4. Conditions to avoid These could cause the pro- avoided. When exposed to 10.5. Incompatible material No hazardous reactions wi 10.6. Hazardous decompos See chapter 5.2 (Firefightin SECTION 11: Toxicologi 11.1. Information on toxico Acute oral toxicity (Comp	erials which are unstable under the follow es. Aus reactions al initiators, peroxides, strong alkalis or re- boduct to polymerise exothermically. Uninter bodies temperatures may produce hazardow S hen stored and handled according to present S hen stored and handled according to present S S S S S S S S	ing conditions: exposure to heat eactive metals. entional contact with them should be ous decomposition products. scribed instructions.
This mixture contains mate (>50°C), strong UV source 10.3. Possibility of hazardo Keep away from free radic 10.4. Conditions to avoid These could cause the pro avoided. When exposed to 10.5. Incompatible material No hazardous reactions wi 10.6. Hazardous decompos See chapter 5.2 (Firefightin SECTION 11: Toxicologi 11.1. Information on toxico Acute oral toxicity (Comp 2-Phenoxyethyl acrylate	erials which are unstable under the follow es. Aus reactions al initiators, peroxides, strong alkalis or re- boduct to polymerise exothermically. Uninter bodies temperatures may produce hazardow S hen stored and handled according to present S hen stored and handled according to present S S S S S S S S	ing conditions: exposure to heat eactive metals. entional contact with them should be ous decomposition products. scribed instructions.
This mixture contains mate (>50°C), strong UV source 10.3. Possibility of hazardo Keep away from free radic 10.4. Conditions to avoid These could cause the pro- avoided. When exposed to 10.5. Incompatible material No hazardous reactions wi 10.6. Hazardous decompos See chapter 5.2 (Firefightin SECTION 11: Toxicologi 11.1. Information on toxico Acute oral toxicity (Comp 2-Phenoxyethyl acrylate Species LD50	erials which are unstable under the follow es. Pus reactions real initiators, peroxides, strong alkalis or re- oduct to polymerise exothermically. Uninter to high temperatures may produce hazardo S then stored and handled according to present S then stored and handled according to present S then stored and handled according to present S S then stored and handled according to present S S S S S S S S	ing conditions: exposure to heat eactive metals. entional contact with them should be ous decomposition products. scribed instructions.
This mixture contains mate (>50°C), strong UV source 10.3. Possibility of hazardo Keep away from free radic 10.4. Conditions to avoid These could cause the pro- avoided. When exposed to 10.5. Incompatible material No hazardous reactions wi 10.6. Hazardous decompos See chapter 5.2 (Firefightin SECTION 11: Toxicologi 11.1. Information on toxico Acute oral toxicity (Comp 2-Phenoxyethyl acrylate Species LD50 Method	erials which are unstable under the follow es. Source actions al initiators, peroxides, strong alkalis or re- oduct to polymerise exothermically. Uninter be high temperatures may produce hazards S hen stored and handled according to pres- Sition products Ing measures - Special hazards arising from Cal information Iogical effects Sources Frat > 5000 OECD 401	ing conditions: exposure to heat eactive metals. entional contact with them should be bus decomposition products. ecribed instructions. om the substance or mixture).
This mixture contains mate (>50°C), strong UV source 10.3. Possibility of hazardo Keep away from free radic 10.4. Conditions to avoid These could cause the pro- avoided. When exposed to 10.5. Incompatible material No hazardous reactions wi 10.6. Hazardous decompos See chapter 5.2 (Firefightin SECTION 11: Toxicologi 11.1. Information on toxico Acute oral toxicity (Comp 2-Phenoxyethyl acrylate Species LD50 Method 4-(1-Oxo-2-propenyl)-morp	erials which are unstable under the follow es. Pus reactions real initiators, peroxides, strong alkalis or re- poduct to polymerise exothermically. Uninter- to high temperatures may produce hazardo S then stored and handled according to prese- S tition products Ing measures - Special hazards arising from Ical information Iogical effects Jonents rat > 5000 OECD 401 Decol 101	ing conditions: exposure to heat eactive metals. entional contact with them should be bus decomposition products. ecribed instructions. om the substance or mixture).
This mixture contains mate (>50°C), strong UV source 10.3. Possibility of hazardo Keep away from free radic 10.4. Conditions to avoid These could cause the pro- avoided. When exposed to 10.5. Incompatible material No hazardous reactions wi 10.6. Hazardous decompos See chapter 5.2 (Firefightin SECTION 11: Toxicologi 11.1. Information on toxico Acute oral toxicity (Comp 2-Phenoxyethyl acrylate Species LD50 Method	erials which are unstable under the follow es. Source actions al initiators, peroxides, strong alkalis or re- oduct to polymerise exothermically. Uninter be high temperatures may produce hazards S hen stored and handled according to pres- Sition products Ing measures - Special hazards arising from Cal information Iogical effects Sources Frat > 5000 OECD 401	ing conditions: exposure to heat eactive metals. entional contact with them should be bus decomposition products. ecribed instructions. om the substance or mixture).

de name: KRONES multicro	ma W 2201					
	Version: 3 / GB	Date revised: 12.09.2018				
	Replaces Version: 2 / GB	Print date: 20.12.18				
Method	OECD 401					
Acute dermal toxicity						
Remarks	Based on available data, the classification	criteria are not met.				
Acute inhalational tox	icity					
Remarks	Based on available data, the classification	criteria are not met.				
Skin corrosion/irritation	on					
evaluation	irritant					
Remarks	The classification criteria are met.					
Serious eye damage/ii						
evaluation Remarks	corrosive The classification criteria are met.					
Sensitization						
evaluation Remarks	May cause sensitization by skin contact. The classification criteria are met.					
Mutagenicity						
Remarks	Based on available data, the classification	criteria are not met.				
Reproductive toxicity						
evaluation Remarks	Suspected of damaging fertility. Suspected The classification criteria are met.	d of damaging the unborn child.				
Carcinogenicity						
Remarks	Based on available data, the classification	criteria are not met.				
Specific Target Organ	Toxicity (STOT)					
Single exposure Remarks	Based on available data, the classification	criteria are not met.				
Repeated exposure						
Remarks	The classification criteria are met.					
evaluation	May cause damage to organs through pro	longed or repeated exposure				
Aspiration hazard						
	a, the classification criteria are not met.					
Experience in practice						
components from short and eye contact. Acryla contact with skin or mu	t, where known, delayed and immediate effects an t-term and long-term exposure by oral, inhalation ate components of the mixture have irritating prop cous membrane may result in irritation symptoms of allergic skin reactions have been observed. The	and dermal routes of exposure erties. Prolonged or repeated s such as redness, blistering,				

tract. Ingestion may cause nausea, weakness and central nervous system effects. **Other information**

There are no data available on the mixture itself.

The mixture has been assessed following the additivity method of the GHS/CLP Regulation (EC) No 1272/2008.

cause irritation. The inhalation of airborne droplets or aerosols may cause irritation of the respiratory

SECTION 12: Ecological information

12.1. Toxicity

General information

There are no data available on the mixture itself.Do not allow to enter drains or water courses.The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is classified for eco-toxicological properties accordingly. See Sections 2 and 3 for details.

de name: KRONES multicroma	W 2201			
		on: 3/GB		Date revised: 12.09.20
	Repla	ces Version: 2/	GB	Print date: 20.12.
Fish toxicity (Componen	ts)			
2-Phenoxyethyl acrylate	-			
LC50	10		mg/l	
Duration of exposure	24	h	U U	
Method	OECD 203			
Diphenyl(2,4,6-trimethylbe Species	enzoyl)phosphine zebra fish (Bra			
LC50	< 10		mg/l	
Duration of exposure	96	h		
Daphnia toxicity (Compo	onents)			
2-Phenoxyethyl acrylate	-			
Species	Daphnia magn	а		
EC50	1,21	-	mg/l	
Duration of exposure	48	h	5	
Method	OECD 202			
2-Phenoxyethyl acrylate				
Species	Daphnia magn	а		
EC10	> 0,1		mg/l	
Duration of exposure	21	Days		
Method	OECD 211			
Diphenyl(2,4,6-trimethylbe				
Species	Daphnia magn	а		
EC50	< 10		mg/l	
Duration of exposure	48	h		
Algae toxicity (Compone	ents)			
2-Phenoxyethyl acrylate				
Species	Desmodesmus	;		
	4,4		mg/l	
Duration of exposure	72	h		
Method	ISO 8692			
2-Phenoxyethyl acrylate				
Species	Desmodesmus	;		
EC10	0,71		mg/l	
Duration of exposure	72	h		
Diphenyl(2,4,6-trimethylbe				
Species		riella subcapitata		
ErC50	< 10 72	h	mg/l	
Duration of exposure		h		
Bacteria toxicity (Compo	onents)			
2-Phenoxyethyl acrylate				
Species	activated sludg	е		
EC50	177		mg/l	
Duration of exposure	3	h		
Method	OECD 209			
2.2. Persistence and degr	adability			
General information	-			
No data available				
	nonte)			
Biodegradability (Compo	ments)			
2-Phenoxyethyl acrylate				
Value	22,3	_	%	
Duration of test	28	Days		

Safety data sheet in accordance with regul	ation (EC) No 1907/2006	
Trade name: KRONES multicroma W 2201		
	Version: 3 / GB	Date revised: 12.09.2018
	Replaces Version: 2 / GB	Print date: 20.12.18
Method OECD	301 D	
12.3. Bioaccumulative potential		
General information		
There are no data available on the m		
Partition coefficient: n-octanol/wa		
Remarks Not Octanol/water partition coefficien	applicable	
•	(log Fow) (Components)	
2-Phenoxyethyl acrylate log Pow	2,58	
Temperature	25 °C	
Method OE	CD 117	
12.4. Mobility in soil		
General information		
There are no data available on the m	nixture itself.	
12.5. Results of PBT and vPvB ass	essment	
General information		
There are no data available on the m	nixture itself.	
12.6. Other adverse effects		
General information		
There are no data available on the m	ixture itself.	
SECTION 13: Disposal conside	rations	
13.1. Waste treatment methods		
Disposal recommendations for th	e product	
Do not allow to enter drains or water	•	
Wastes and emptied containers should be the second		
The European Waste Catalogue clas EWC waste code 08 03		
If this product is mixed with other wa		
appropriate code should be assigned		
For further information contact your I	•	
Disposal recommendations for pa Using information provided in this sa		tained from the relevant waste
authority on the classification of emp		allied from the relevant waste
Empty containers must be scrapped		
Not emptied containers are hazardou	us waste (waste code number 15011	10).
SECTION 14: Transport inform	ation	
Land transport ADR/RID		
14.1. UN number		
UN 3082 14.2. UN proper shipping name		
ENVIRONMENTALLY HAZARDOUS	SUBSTANCE, LIQUID, N.O.S. (2-F	Phenoxyethyl acrylate)
14.3. Transport hazard class(es)		
Class 9 Label 9		
14.4. Packing group		
Packing group III		

ade name: KRONES m	ulticroma V	N 2201						
			Version:	3 / GB		D	ate revised:	12.09.20
			Replace	s Version:	2 / GB		Print date	e: 20.12.
Limited Quantity Transport catego 14.5. Environmenta ENVIRONMENT Tunnel restriction	a l hazards ALLY HAZ							
Marine transport IM 14.1. UN number UN 3082								
14.2. UN proper shi ENVIRONMENT 14.3. Transport haz Class	ALLY HAZ	ARDOUS	SUBSTAN	NCE, LIQU	ID, N.O.S. (2-F	Phenoxye	thyl acrylate)	
14.4. Packing group Packing group 14.5. Environmenta Marine Pollutant	-							
Air transport ICAO/I 14.1. UN number UN 3082 14.2. UN proper shi	ipping nai						41-1	
ENVIRONMENT 14.3. Transport haz Class			SUBSTA	NCE, LIQU	ID, N.O.S. (2-1	henoxye	thyl acrylate)	
14.4. Packing group Packing group 14.5. Environmenta ENVIRONMENT	al hazards							
nformation for all m 14.6. Special preca Transport within t Always transport Ensure that perso	utions for the user's in closed o	user premises: containers	that are u			nt of an a	ccident or spill	age.
Other information 14.7. Transport in b	oulk accor	rding to A	nnex II of	Marpol an	d the IBC Co	de		-
-	• •							
ECTION 15: Reg	-							
5.1. Safety, health a principal structure	and env	ironmer	ital regu	lations/le	egislation s	pecific	for the sub	stance
Major-accident ca	ategories	acc. 96	82/EC					
Category	9.II			vironment	200.000	kg	500.000	kg
VOC (EU) VOC (EU) VOC (EU)			0,04	% 0,4	g/l			
. ,		ain substa	nces of ver	·	-			
Other information The product does	s not conta	in substa	1000 01 101	J				
				yg.: ee.	, , , , , , , , , , , , , , , , , , ,			

de name: KRONES multicro	na w 2201	Varaiant 2/CB		Date revised: 12.09.20
		Version: 3 / GB Replaces Version:	2 / GB	Print date: 20.12
Hazard statements list	ad in Chant	or 2		
H302	-	ll if swallowed.		
H315		s skin irritation.		
H317		iuse an allergic skin r	eaction	
H318		s serious eye damag		
H319		s serious eye irritation		
H335		use respiratory irritat		
H361d		cted of damaging the		
H361f		cted of damaging fert		
H373				nged or repeated exposure:
H400		xic to aquatic life.		
H410	Very to	xic to aquatic life with	long lasting effe	ects.
H411	Toxic t	o aquatic life with lon	g lasting effects.	
CLP categories listed i	n Chapter 3	5		
Acute Tox. 4	Acute	oxicity, Category 4		
Aquatic Acute 1		lous to the aquatic er	vironment, acute	e, Category 1
Aquatic Chronic 1		lous to the aquatic er		
Aquatic Chronic 2	Hazaro	lous to the aquatic er	vironment, chro	nic, Category 2
Eye Dam. 1		s eye damage, Categ	ory 1	
Eye Irrit. 2		tation, Category 2		
Repr. 2		luctive toxicity, Categ	ory 2	
Skin Irrit. 2		itation, Category 2		
Skin Sens. 1		ensitization, Category		
Skin Sens. 1A		ensitization, Category		
Skin Sens. 1B		ensitization, Category		Ostana O
STOT RE 2 STOT SE 3		c target organ toxicity c target organ toxicity		
Supplemental information	-	c larger organ toxicity	- single exposu	re, Calegory 3
••	pared with the ed on our pres ific product pr	ent state of knowled operties and shall no	ge. However, it s establish a lega	ally valid relationship.
legislation. It provides guidance on construed as any guara	health, safet	/ and environmental a ical performance or s	aspects of the pr uitability for part	oduct and should not be
to the supplier and obta	ining written	nandling instructions. ne product are outside	the supplier's c	control, the user is responsible
				user's own assessment of
workplace risks, as req				
- ····, ··· -	, ,			