Trade name: KRONES multicroma Cleaner 2201 1 L

Version: 7 / GB Date revised: 13.07.2020

Substance number: 3615009700401 Replaces Version: 6 / GB Print date: 23.07.20

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

1.1. Product identifier

KRONES multicroma Cleaner 2201 1 L

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

Use of the substance/preparation

Cleaner for digital inks

Identified Uses

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
PROC1 Chemical production or refinery in closed process without likelihood of exposure

or processes with equivalent containment conditions.

PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

PROC3 Manufacture or formulation in the chemical industry in closed batch processes

with occasional controlled exposure or processes with equivalent containment

condition

PROC4 Chemical production where opportunity for exposure arises

PROC5 Mixing or blending in batch processes

PROC8a Transfer of substance or mixture (charging and discharging) at nondedicated

facilities

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities

PROC10 Roller application or brushing PROC11 Non industrial spraying

PROC13 Treatment of articles by dipping and pouring PROC19 Manual activities involving hand contact

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

SU21 Consumer uses: Private households (= general public = consumers)

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

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

by / telephone

E-mail address of quality.management@kic-krones.com

person responsible

for this SDS

1.4. Emergency telephone number

For medical advice (in German and English language): +49 (0) 551 192 40 (Giftinformationszentrum Nord). In case of transport accidents and other emergencies. +44 (0) 1235 239 670 (NCECV, National Chemical Emergency Center)

SECTION 2: Hazards identification ***

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2.1. Classification of the substance or mixture

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

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

Acute Tox. 4 H302 Acute Tox. 4 H312 Acute Tox. 4 H332

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms



Signal word

Warning

Hazard statements ***

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.

Precautionary statements

P261 Avoid breathing dust / fume / gas / mist / vapours / spray.

P264.1 Wash hands thoroughly after handling.

P280 Wear protective gloves / protective clothing / eye protection / face protection.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTRE or doctor if you feel unwell.

P330 Rinse mouth.

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

contains 2-Butoxyethyl acetate

2.3. Other hazards

No special hazards have to be mentioned.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Solvent mixture of esters

Hazardous ingredients

2-Butoxyethyl acetate

CAS No. 112-07-2 EINECS no. 203-933-3

Registration no. 01-2119475112-47

Concentration >= 93 < 100 %

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

Acute Tox. 4 H332 Acute Tox. 4 H312 Acute Tox. 4 H302

SECTION 4: First aid measures

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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.

After eye contact

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, powders, water spray/mist

Non suitable extinguishing media

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

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).

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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

Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. Mixture may charge electrostatically: always use earthing leads when transferring from one container to another. Operators should wear anti-static footwear and clothing and floors should be of the conducting type. Isolate from sources of heat, sparks and open flame. No sparking tools should be used. Avoid skin and eye contact. Avoid the inhalation of particulates and spray mist arising from the application of this mixture. Smoking, eating and drinking shall be prohibited in application area. For personal protection see Section 8. Never use pressure to empty: container is not a pressure vessel. Always keep in containers of same material as the original one. Comply with the health and safety at work laws. Do not allow to enter drains or water courses.

Advice on protection against fire and explosion

Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

Classification of fires / temperature class / Ignition group / Dust explosion class

Classification of fires B (Combustible liquid substances)

Temperature class T3

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Electrical installations/working materials must comply with the local applied technological safety standards. Storage rooms in which filling operations take place must have a conducting floor. Store in accordance with national regulation

Hints on storage assembly

Store away from oxidising agents, from strongly alkaline and strongly acid materials.

Further information on storage conditions

Observe label precautions. Store between 15 and 30 °C in a dry, well ventilated place away from sources of heat and direct sunlight. Keep container tightly closed. Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3. Specific end use(s)

Cleaner for digital inks

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values

2-Butoxyethyl acetate

List EH40 Type WEL

Skin resorption / sensibilisation: Sk; Status: 2011

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Derived No/Minimal Effect Levels (DNEL/DMEL)

2-Butoxyethyl acetate

Reference substance 2-Butoxyethyl acetate

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 133 mg/m³

2-Butoxyethyl acetate

Type of value Derived No Effect Level (DNEL)

Reference group

Duration of exposure

Route of exposure

Mode of action

Concentration

Worker

Short term
inhalative
Local effects

333

333 mg/m³

2-Butoxyethyl acetate

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 169 mg/kg/d

2-Butoxyethyl acetate

Type of value Derived No Effect Level (DNEL)

Reference group Worker
Duration of exposure Short term
Route of exposure dermal

Mode of action Systemic effects
Concentration 120

Concentration 120 mg/kg/d

2-Butoxyethyl acetate

Type of value Derived No Effect Level (DNEL)

Reference group General Population

Duration of exposure Long term
Route of exposure inhalative

Mode of action Systemic effects

Concentration 80 mg/m³

2-Butoxyethyl acetate

Type of value Derived No Effect Level (DNEL)

Reference group General Population

Duration of exposure Short term
Route of exposure inhalative
Mode of action Local effects
Concentration 200

oncentration 200 mg/m³

2-Butoxyethyl acetate

Type of value Derived No Effect Level (DNEL)

Reference group General Population

Duration of exposure Long term
Route of exposure dermal

Mode of action Systemic effects

Concentration 102 mg/kg/d

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2-Butoxyethyl acetate

Type of value Derived No Effect Level (DNEL)

Reference group General Population

Duration of exposure Short term Route of exposure dermal

Mode of action Systemic effects

Concentration 72 mg/kg/d

2-Butoxyethyl acetate

Type of value Derived No Effect Level (DNEL)

Reference group General Population

Duration of exposure Long term Route of exposure oral

Mode of action Systemic effects

Concentration 8,6 mg/kg/d

2-Butoxyethyl acetate

Type of value Derived No Effect Level (DNEL)

Reference group General Population

Duration of exposure Short term

Route of exposure oral

Mode of action Systemic effects

Concentration 36 mg/kg/d

Predicted No Effect Concentration (PNEC)

2-Butoxvethyl acetate

Reference substance 2-Butoxyethyl acetate

Type of value PNEC Type Water

Concentration 0,304 mg/l

Source Literature value

2-Butoxyethyl acetate

Type of value PNEC
Type Aquatic

Concentration 0,0304 g/l

Source Literature value

2-Butoxyethyl acetate

Type of value PNEC Sediment

Concentration 2,03 mg/kg

Source Literature value

2-Butoxyethyl acetate

Type of value PNEC

Type Marine sediment

Concentration 0,203 mg/kg

Source Literature value

2-Butoxyethyl acetate

Type of value PNEC Type Soil

Concentration 0,68 mg/kg

Source Literature value

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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. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL, suitable respiratory protection must be worn.

Respiratory protection

If workers are exposed to concentrations above the exposure limit they must use appropriate, certified respirators. Full mask, filter A

Hand protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

For prolonged or repeated handling nitrile rubber gloves with textile undergloves are required.

Material thickness > 0,5 mm Breakthrough time < 30 min

The breakthrough time must be greater than the end use time of the product.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/ chemical damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred.

Eve protection

Use safety eyewear designed to protect against splash of liquids.

Body protection

Cotton or cotton/synthetic overalls or coveralls are normally suitable.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form Liquid

Colourcolourless, clearOdoursolvent-like

Odour threshold

Remarks No data available

pH value

Remarks Not applicable

Melting point

Remarks not determined

Freezing point

Remarks not determined

Initial boiling point and boiling range

Value appr. 184 °C

Pressure 1.013 hPa

Source Literature value

Flash point

Value 72 °C

Method ASTM D 6450 (CCCFP)

Evaporation rate (ether = 1):

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Remarks not determined

Flammability (solid, gas)

Not applicable

Upper/lower flammability or explosive limits

Source Literature value

Vapour pressure

Value appr. 3 hPa

Temperature 20 °C

Method calculated

Vapour density

Remarks not determined

Density

Value 0,936 g/cm³

Temperature 20 °C Method DIN EN ISO 2811

Solubility in water

Remarks partially miscible

Partition coefficient: n-octanol/water

Remarks Not applicable

Ignition temperature

Value appr. 280 °C

Source Literature value

Efflux time

Value < 12 s

Method DIN 53211 4 mm

Explosive properties

evaluation no

Oxidising properties

evaluation None known

9.2. Other information

Other information

The physical specifications are approximate values and refer to the used safety relevant component(s).

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reactions when stored and handled according to prescribed instructions.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

10.4. Conditions to avoid

When exposed to high temperatures may produce hazardous decomposition products.

10.5. Incompatible materials

No hazardous reactions when stored and handled according to prescribed instructions.

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10.6. Hazardous decomposition products

See chapter 5.2 (Firefighting measures - Special hazards arising from the substance or mixture).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity

ATE 1.898,81 mg/kg

73

Method calculated value (Regulation (EC) No. 1272/2008)

Acute oral toxicity (Components)

2-Butoxyethyl acetate

Species rat

LD50 1880 mg/kg

Method OECD 401

Acute dermal toxicity

ATE 1.494,81 mg/kg

36

Method calculated value (Regulation (EC) No. 1272/2008)

Acute dermal toxicity (Components)

2-Butoxyethyl acetate

Species rabbit

LD50 1480 mg/kg

Acute inhalational toxicity

ATE 11,1101 mg/l

Administration/Form Vapors

Method calculated value (Regulation (EC) No. 1272/2008) ATE 1,515 mg/l

Administration/Form Dust/Mist

Method calculated value (Regulation (EC) No. 1272/2008)

Remarks The classification criteria are met.

Acute inhalative toxicity (Components)

2-Butoxyethyl acetate

Species rat

LD0 2,66 mg/l

Duration of exposure 4 h

Administration/Form Vapors
Method OECD 403

Skin corrosion/irritation

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

Serious eye damage/irritation

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

Sensitization

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

Mutagenicity

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

Reproductive toxicity

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

Carcinogenicity

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

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Specific Target Organ Toxicity (STOT)

Single exposure

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

Repeated exposure

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

Aspiration hazard

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

Experience in practice

Exposure to component solvents vapours concentration in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin. The liquid splashed in the eyes may cause irritation and reversible damage. Ingestion may cause nausea, diarrhoea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Other information

There are no data available on the mixture itself.

The mixture has been assessed following the additivity method of the CLP Regulation (EC) No 1272/2008 and classified for toxicological hazards accordingly.

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 not classified as dangerous for the environment.

Fish toxicity (Components)

2-Butoxyethyl acetate

Species golden orfe (Leuciscus idus)
LC50 80 mg/l
Duration of exposure 48 h

Daphnia toxicity (Components)

2-Butoxyethyl acetate

Species Daphnia magna
EC50 37 mg/l
Duration of exposure 48 h

Algae toxicity (Components)

2-Butoxyethyl acetate

EC50 > 500 mg/l Duration of exposure 72 h

Bacteria toxicity (Components)

2-Butoxyethyl acetate

Species Pseudomonas putida EC10 720 mg/l

Duration of exposure 17

Method OECD 209

h

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12.2. Persistence and degradability

General information

No data available

Biodegradability (Components)

2-Butoxyethyl acetate

Value 88 %

Duration of test 28 d

evaluation Readily biodegradable (according to OECD criteria)

Method OECD 301 C

12.3. Bioaccumulative potential

General information

There are no data available on the mixture itself.

Partition coefficient: n-octanol/water

Remarks Not applicable

12.4. Mobility in soil

General information

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

General information

There are no data available on the mixture itself.

12.6. Other adverse effects

General information

There are no data available on the mixture itself.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations for the product

Do not allow to enter drains or water courses.

Wastes and emptied containers should be classified in accordance with relevant national regulation.

The European Waste Catalogue classification of this product, when disposed of as waste is EWC waste code 08 03 12* waste ink containing dangerous substances

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

For further information contact your local waste authority.

Disposal recommendations for packaging

Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers.

Empty containers must be scrapped or reconditioned.

Not emptied containers are hazardous waste (waste code number 150110).

SECTION 14: Transport information

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	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
14.1. UN number	The product does not constitute a hazardous substance in land transport	The product does not constitute a hazardous substance in sea transport	The product does not constitute a hazardous substance in air transport
14.2. UN proper shipping name	-	-	-
14.3. Transport hazard class(es)	-	-	-
Subsidiary risk		-	-
Label			
14.4. Packing group	-	-	-
Transport category	0		
14.5. Environmental hazards		no	
	-		-

Information for all modes of transport

14.6. Special precautions for user

Transport within the user's premises:

Always transport in closed containers that are upright and secure.

Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Other information

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

nc

SECTION 15: Regulatory information

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

VOC

VOC (EU) 99,01 %

VOC (EU) 926,7 g/l

Other information

The product does not contain substances of very high concern (SVHC).

Other information

All components are contained in the TSCA inventory or exempted.

All components are contained in the AICS inventory.

All components are contained in the DSL inventory.

All components are contained in the IECSC inventory.

All components are contained in the ENCS inventory.

All components are contained in the ECL inventory.

All components are contained in the NZIOC inventory.

15.2. Chemical safety assessment

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

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SECTION 16: Other information

Hazard statements listed in Chapter 3

H302 Harmful if swallowed. H312 Harmful in contact with skin.

H332 Harmful if inhaled.

CLP categories listed in Chapter 3

Acute Tox. 4 Acute toxicity, Category 4

Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: *** This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship. The information in this Safety Data Sheet is based on the present state of knowledge and current legislation.

It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. The product should not be used for purposes other than those shown in Section 1 without first referring

to the supplier and obtaining written handling instructions.
As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with.

The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation.