

Trade name: 79000-00104, ink, white

Current version : 1.0.0, issued: 11.03.2021

Replaced version: -, issued: -

Region: GB

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

1.1 Product identifier

Trade name

79000-00104, ink, white

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

Relevant identified uses of the substance or mixture

printer's ink
Ink

Uses advised against

No data available.

1.3 Details of the supplier of the safety data sheet

Address

Paul Leibinger GmbH & Co. KG
Daimlerstasse 14
78532 Tuttlingen

Telephone no. +49 (0)7461 9286 0
Fax no. +49 (0)7461 9286 119
e-mail info@leibinger-group.com

Advice on Safety Data Sheet

sdb_info@umco.de

1.4 Emergency telephone number

For medical advice (in German and English):
+49 (0)551 192 40 (Giftinformationszentrum Nord)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 (CLP)

Eye Irrit. 2; H319
Flam. Liq. 2; H225
STOT SE 3; H336

Classification information

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.

2.2 Label elements

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

Hazard pictograms



GHS02



GHS07

Signal word

Danger

Hazardous component(s) to be indicated on label:

butanone

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Hazard statement(s)

H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Hazard statements (EU)

EUH066 Repeated exposure may cause skin dryness or cracking.
EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

Precautionary statement(s)

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/ equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P261 Avoid breathing mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P370+P378 In case of fire: Use sand, fire powder, carbon dioxide or foam to extinguish.

2.3 Other hazards

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**Hazardous ingredients**

No	Substance name	Additional information	
	CAS / EC / Index / REACH no	Classification (EC) 1272/2008 (CLP)	Concentration
			%
1	butanone		
	78-93-3 201-159-0 606-002-00-3 01-2119457290-43	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 EUH066	>= 25.00 - < 50.00 wt%
2	ethanol		
	64-17-5 200-578-6 603-002-00-5 01-2119457610-43	Flam. Liq. 2; H225 Eye Irrit. 2; H319	>= 10.00 - < 25.00 wt%
3	titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]		
	13463-67-7 236-675-5 022-006-00-2 -	Carc. 2; H351i	>= 10.00 - < 15.00 wt%
4	ethyl-acetate		
	141-78-6 205-500-4 607-022-00-5 01-2119475103-46	EUH066 Eye Irrit. 2; H319 Flam. Liq. 2; H225 STOT SE 3; H336	>= 5.00 - < 10.00 wt%
5	1-methoxy-2-propanol		

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	107-98-2 203-539-1 603-064-00-3 01-2119457435-35	Flam. Liq. 3; H226 STOT SE 3; H336	< 5.00	wt%
6	sodium perchlorate		pls. refer to footnote (2)	
	7601-89-0 231-511-9 017-010-00-6 01-2119540521-50	Ox. Sol. 1; H271 Acute Tox. 4; H302 Eye Irrit. 2; H319 STOT RE 2; H373o	< 2.50	wt%

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

(2) According to the latest state of knowledge and applying the criteria set out in annex I to Regulation (EC) No 1272/2008, the aforementioned classification is required. This classification goes beyond the classification set out in table 3, Annex VI to Regulation (CE) No 1272/2008.

No	Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)
2	-	Eye Irrit. 2; H319: C \geq 50%	-	-
3	V, W, 10	-	-	-

Full text for the notes: pls. see section 16 "Notes relating to the identification, classification and labelling of substances ((EC) No 1272/2008, Annex VI)".

No	Route, target organ, concrete effect
3	H351i inhalational; -; -
6	H373o oral; -; -

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing. In case of persisting adverse effects, consult a physician.

After inhalation

Remove affected persons from dangerous area by observing suitable respiratory protection measures. Ensure supply of fresh air.

After skin contact

In case of contact with skin wash off with water.

After eye contact

Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). Get medical attention if pain still persists.

After ingestion

Rinse the mouth thoroughly with water. Do not induce vomiting. Never give anything by mouth to an unconscious person.

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

Alcohol resistant foam, CO₂, powders, water spray

Unsuitable extinguishing media

High power water jet

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In the event of fire, the following can be released: Carbon dioxide (CO₂); Carbon monoxide (CO); chlorine compounds

5.3 Advice for firefighters

Use self-contained breathing apparatus. Wear protective clothing. Containers close to fire should be transferred to a safe place. Cool closed containers exposed to fire with water.

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. Keep away from ignition sources.

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 into the subsoil/soil.

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).

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**

Risks inherent to handling the product must be minimised by applying the appropriate protective and preventive measures. Working processes should - so far as possible, according to the state of the art - be designed to rule out bodily contact or the release of hazardous substances.

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Do not inhale vapours. Avoid contact with eyes and skin. Wash hands before breaks and after work. Remove contaminated clothing and shoes and launder thoroughly before reusing.

Advice on protection against fire and explosion

Keep away from ignition sources and provide for good ventilation. Vapours can form an explosive mixture with air. Isolate from sources of heat, sparks and open flame. Take precautionary measures against electrostatic loading (earthing necessary during loading operations). Use explosion-proof equipment/fittings and non-sparking tools.

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.

Recommended storage temperature

Value 10 - 25 °C

Requirements for storage rooms and vessels

Containers which are opened must be carefully closed and kept upright to prevent leakage. Always keep in containers of same material as the original.

Incompatible products

Substances to be avoided, see section 10.

7.3 Specific end use(s)**Recommendations**

Ink for industrial CIJ printers

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

No	Substance name	CAS no.	EC no.
1	butanone	78-93-3	201-159-0
	2000/39/EC		
	Butanone		
	WEL short-term (15 min reference period)	900 mg/m ³	300 ppm
	WEL long-term (8-hr TWA reference period)	600 mg/m ³	200 ppm
	List of approved workplace exposure limits (WELs) / EH40		
	Butan-2-one		
	WEL short-term (15 min reference period)	899 mg/m ³	300 ppm
	WEL long-term (8-hr TWA reference period)	600 mg/m ³	200 ppm
	Comments	Sk, BMGV	
2	ethanol	64-17-5	200-578-6
	List of approved workplace exposure limits (WELs) / EH40		
	Ethanol		
	WEL long-term (8-hr TWA reference period)	1920 mg/m ³	1000 ppm
3	titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]	13463-67-7	236-675-5
	List of approved workplace exposure limits (WELs) / EH40		
	Titanium dioxide		
	total inhalable dust		
	WEL long-term (8-hr TWA reference period)	10 mg/m ³	
	List of approved workplace exposure limits (WELs) / EH40		
	Titanium dioxide		
	respirable dust		
	WEL long-term (8-hr TWA reference period)	4 mg/m ³	
4	ethyl-acetate	141-78-6	205-500-4
	2017/164/EU		
	Ethyl acetate		
	WEL short-term (15 min reference period)	1468 mg/m ³	400 ppm
	WEL long-term (8-hr TWA reference period)	734 mg/m ³	200 ppm
	List of approved workplace exposure limits (WELs) / EH40		
	Ethyl acetate		
	WEL short-term (15 min reference period)		400 ppm
	WEL long-term (8-hr TWA reference period)		200 ppm
5	1-methoxy-2-propanol	107-98-2	203-539-1
	2000/39/EC		
	1-Methoxypropanol-2		
	WEL short-term (15 min reference period)	568 mg/m ³	150 ppm
	WEL long-term (8-hr TWA reference period)	375 mg/m ³	100 ppm
	Skin resorption / sensibilisation	Skin	
	List of approved workplace exposure limits (WELs) / EH40		
	1-Methoxypropan-2-ol		
	WEL short-term (15 min reference period)	560 mg/m ³	150 ppm
	WEL long-term (8-hr TWA reference period)	375 mg/m ³	100 ppm
	Comments	Sk	

DNEL, DMEL and PNEC values

DNEL values (worker)

No	Substance name	CAS / EC no
	Route of exposure	Exposure time
	Effect	Value
1	butanone	78-93-3

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				201-159-0
	dermal	Long term (chronic)	systemic	1161 mg/kg/day
	inhalative	Long term (chronic)	systemic	600.00 mg/m ³
2	ethanol			64-17-5 200-578-6
	dermal	Long term (chronic)	systemic	343 mg/kg/day
	inhalative	Long term (chronic)	systemic	950 mg/m ³
3	ethyl-acetate			141-78-6 205-500-4
	dermal	Long term (chronic)	systemic	63 mg/kg/day
	inhalative	Short term (acut)	systemic	1468 mg/m ³
	inhalative	Long term (chronic)	local	734 mg/m ³
	inhalative	Short term (acut)	local	1468 mg/m ³
	inhalative	Long term (chronic)	systemic	734 mg/m ³
4	1-methoxy-2-propanol			107-98-2 203-539-1
	dermal	Long term (chronic)	systemic	50.6 mg/kg/day
	inhalative	Long term (chronic)	systemic	369 mg/m ³
	inhalative	Short term (acut)	local	553.5 mg/m ³
5	sodium perchlorate			7601-89-0 231-511-9
	dermal	Long term (chronic)	systemic	2.16 mg/kg/day
	inhalative	Long term (chronic)	systemic	0.28 mg/m ³

DNEL value (consumer)

No	Substance name			CAS / EC no
	Route of exposure	Exposure time	Effect	Value
1	butanone			78-93-3 201-159-0
	oral	Long term (chronic)	systemic	31 mg/kg/day
	dermal	Long term (chronic)	systemic	412 mg/kg/day
	inhalative	Long term (chronic)	systemic	106 mg/m ³
2	ethanol			64-17-5 200-578-6
	oral	Long term (chronic)	systemic	87 mg/kg/day
	dermal	Long term (chronic)	systemic	206 mg/kg/day
	inhalative	Long term (chronic)	systemic	114 mg/m ³
3	ethyl-acetate			141-78-6 205-500-4
	oral	Long term (chronic)	systemic	4.5 mg/kg/day
	dermal	Long term (chronic)	systemic	37 mg/kg/day
	inhalative	Short term (acut)	systemic	734 mg/m ³
	inhalative	Long term (chronic)	local	367 mg/m ³
	inhalative	Short term (acut)	local	734 mg/m ³
	inhalative	Long term (chronic)	systemic	367 mg/m ³
4	1-methoxy-2-propanol			107-98-2 203-539-1
	oral	Long term (chronic)	systemic	3.3 mg/kg/day
	dermal	Long term (chronic)	systemic	18.1 mg/kg/day
	inhalative	Long term (chronic)	systemic	43.9 mg/m ³
5	sodium perchlorate			7601-89-0 231-511-9
	oral	Long term (chronic)	systemic	0.02 mg/kg/day

PNEC values

No	Substance name		CAS / EC no
	ecological compartment	Type	Value
1	butanone		78-93-3 201-159-0
	water	fresh water	55.8 mg/L

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	water	marine water	55.8	mg/L
	water	Aqua intermittent	55.8	mg/L
	water	fresh water sediment	284.74	mg/kg
	with reference to: dry weight			
	water	marine water sediment	284.7	mg/kg
	with reference to: dry weight			
	soil	-	22.5	mg/kg
	with reference to: dry weight			
	sewage treatment plant	-	709	mg/L
	secondary poisoning	-	1000	mg/kg
	with reference to: food			
2	ethanol		64-17-5 200-578-6	
	water	fresh water	0.96	mg/L
	water	Aqua intermittent	2.75	mg/L
	water	marine water	0.79	mg/L
	water	fresh water sediment	3.6	mg/kg dry weight
	water	marine water sediment	2.9	mg/L
	soil	-	0.63	mg/kg dry weight
	sewage treatment plant	-	580	mg/L
	secondary poisoning	-	0.38	mg/kg food
3	ethyl-acetate		141-78-6 205-500-4	
	water	fresh water	0.24	mg/L
	water	marine water	0.024	mg/L
	water	Aqua intermittent	1.65	mg/L
	water	fresh water sediment	1.15	mg/kg dry weight
	water	marine water sediment	0.115	mg/kg dry weight
	soil	-	0.148	mg/kg dry weight
	sewage treatment plant	-	650	mg/L
	secondary poisoning	-	200	mg/kg
4	1-methoxy-2-propanol		107-98-2 203-539-1	
	water	fresh water	10	mg/L
	water	marine water	1	mg/L
	water	Aqua intermittent	100	mg/L
	water	fresh water sediment	52.3	mg/kg
	with reference to: dry weight			
	water	marine water sediment	5.2	mg/kg
	with reference to: dry weight			
	soil	-	5.49	mg/kg
	with reference to: dry weight			
	sewage treatment plant	-	100	mg/L
5	sodium perchlorate		7601-89-0 231-511-9	
	water	fresh water	0.021	mg/L
	water	marine water	0.002	mg/L
	water	fresh water sediment	4.67	mg/kg dry weight
	water	marine water sediment	0.467	mg/kg dry weight
	soil	-	2.55	mg/kg dry weight
	sewage treatment plant	-	7	mg/L

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8.2 Exposure controls

Appropriate engineering 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 (=Occupational Exposure Limit), suitable respiratory protection must be worn.

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 aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Respirator Filter: A2

Eye / face protection

Tightly fitting safety glasses (EN 166).

Hand protection

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.

Appropriate Material	butyl rubber		
Material thickness	>	0.5	mm
Breakthrough time	>=	60	min

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	
liquid	
Form/Colour	
white	
Odour	
ketone-like	
pH value	
No data available	
Boiling point / boiling range	
No data available	
Melting point/freezing point	
No data available	
Decomposition temperature	
No data available	
Flash point	
No data available	
Ignition temperature	
Value	>= 270 °C
Source	supplier
Flammability	

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No data available			
Lower explosion limit			
Value	1.8	% vol	
Source	supplier		
Upper explosion limit			
Value	15	% vol	
Source	supplier		
Vapour pressure			
No data available			
Relative vapour density			
No data available			
Relative density			
No data available			
Density			
Value	1.02	g/cm ³	
Source	supplier		
Solubility in water			
Source	supplier		
Comments	partially miscible		
Solubility			
No data available			
Partition coefficient n-octanol/water (log value)			
No	Substance name	CAS no.	EC no.
1	butanone	78-93-3	201-159-0
	log Pow	0.3	
	Reference temperature	40	°C
	Method	OECD 117	
	Source	ECHA	
2	ethanol	64-17-5	200-578-6
	log Pow	-0.35	
	Reference temperature	24	°C
	with reference to	pH 7,4	
	Method	OECD 107	
	Source	ECHA	
3	ethyl-acetate	141-78-6	205-500-4
	log Pow	6.8	
	Reference temperature	25	°C
	Source	ECHA	
Viscosity			
Value	appr.	9	mPa*s
Source	supplier		
Solvent content			
Value	64	% (m)	
Solids content			
Value	36	%	
Particle characteristics			
No data available			

9.2 Other information

Other information	
VOC: 520 g/l	

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SECTION 10: Stability and reactivity

10.1 Reactivity

Dangerous reactions are not expected if the product is handled according to its intended use.

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

Heat, naked flames and other ignition sources.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

None, if handled according to intended use.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity (result of the ATE calculation for the mixture)	
No	Product Name
1	79000-00104, ink, white
Comments	The result of the applied calculation method according to the European Regulation (EC) 1272/2008 (CLP), Paragraph 3.1.3.6, Part 3 of Annex I is outside the values that imply a classification / labelling of this mixture according to table 3.1.1 defining the respective categories (ATE oral > 2000 mg/kg).

Acute oral toxicity			
No	Substance name	CAS no.	EC no.
1	butanone	78-93-3	201-159-0
LD50		2054	mg/kg bodyweight
Species	rat		
Method	OECD 423		
Source	ECHA / Read across		
2	ethanol	64-17-5	200-578-6
LD50		10470	mg/kg bodyweight
Species	rat		
with reference to	95% ethanol in water		
Method	OECD 401		
Source	ECHA		
3	ethyl-acetate	141-78-6	205-500-4
LD50	>	5600	mg/kg bodyweight
Species	rat		
Source	ECHA		
4	1-methoxy-2-propanol	107-98-2	203-539-1
LD50		4016	mg/kg bodyweight
Species	rat		
Method	EC 440/2008, B.1		
Source	ECHA		

Acute dermal toxicity			
No	Substance name	CAS no.	EC no.
1	ethyl-acetate	141-78-6	205-500-4
LD50	>	20000	mg/kg bodyweight
Species	rabbit		

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Source	ECHA		
2	1-methoxy-2-propanol	107-98-2	203-539-1
LD50	>	2000	mg/kg bodyweight
Species	rat		
Method	440/2008/EC B.3.		
Source	ECHA		
3	sodium perchlorate	7601-89-0	231-511-9
LD50	>	2000	mg/kg bodyweight
Species	rat		
Method	OECD 402		
Source	ECHA		

Acute inhalational toxicity			
No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
LC50		124.7	mg/l
Duration of exposure		4	h
State of aggregation	Vapour		
Species	rat		
Method	OECD 403		
Source	ECHA		

Skin corrosion/irritation			
No	Substance name	CAS no.	EC no.
1	butanone	78-93-3	201-159-0
Duration of exposure		4	h
Species	rabbit		
Method	OECD 404		
Source	ECHA / Read across		
Evaluation	non-irritant		
2	ethanol	64-17-5	200-578-6
Species	rabbit		
Method	OECD 404		
Source	ECHA		
Evaluation	non-irritant		
3	ethyl-acetate	141-78-6	205-500-4
Species	rabbit		
Method	OECD 404		
Source	ECHA		
Evaluation	low-irritant		
Evaluation/classification	Based on available data, the classification criteria are not met.		
4	1-methoxy-2-propanol	107-98-2	203-539-1
Species	rabbit		
Method	EC 440/2008, B.4		
Source	ECHA		
Evaluation	non-irritant		
5	sodium perchlorate	7601-89-0	231-511-9
Species	rabbit		
Method	OECD 404		
Source	ECHA		
Evaluation	low-irritant		
Evaluation/classification	Based on available data, the classification criteria are not met.		

Serious eye damage/irritation			
No	Substance name	CAS no.	EC no.
1	butanone	78-93-3	201-159-0
Species	rabbit		
Method	OECD 405		
Source	ECHA		
Evaluation	irritant		
2	ethanol	64-17-5	200-578-6

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Species	rabbit		
Method	OECD 405		
Source	ECHA		
Evaluation	irritant		
3	ethyl-acetate	141-78-6	205-500-4
Species	rabbit		
Method	OECD 405		
Source	ECHA		
Evaluation	low-irritant		
4	1-methoxy-2-propanol	107-98-2	203-539-1
Species	rabbit		
Method	2004/73/EEC, B.5		
Source	ECHA		
Evaluation	non-irritant		
5	sodium perchlorate	7601-89-0	231-511-9
Species	rabbit		
Method	OECD 405		
Source	ECHA		
Evaluation	Irritating to eyes		

Respiratory or skin sensitisation			
No	Substance name	CAS no.	EC no.
1	butanone	78-93-3	201-159-0
Route of exposure		Skin	
Species	guinea pig		
Method	OECD 406		
Source	ECHA		
Evaluation	non-sensitizing		
2	ethanol	64-17-5	200-578-6
Route of exposure		Skin	
Species	mouse		
Source	ECHA		
Evaluation	non-sensitizing		
3	ethyl-acetate	141-78-6	205-500-4
Route of exposure		Skin	
Species	guinea pig		
Method	OECD 406		
Source	ECHA		
Evaluation	non-sensitizing		
4	1-methoxy-2-propanol	107-98-2	203-539-1
Route of exposure		Skin	
Species	guinea pig		
Method	440/2008/EC B.6		
Source	ECHA		
Evaluation	non-sensitizing		
5	sodium perchlorate	7601-89-0	231-511-9
Route of exposure		Skin	
Species	mouse		
Method	OECD 429		
Source	ECHA		
Evaluation	non-sensitizing		

Germ cell mutagenicity			
No	Substance name	CAS no.	EC no.
1	butanone	78-93-3	201-159-0
Type of examination	in vitro gene mutation study in bacteria		
Species	Salmonella typhimurium		
Method	OECD 471		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

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Type of examination	In vitro Mammalian Chromosomal Aberration Test	
Species	rat	
Method	OECD 473	
Source	ECHA	
Evaluation/classification	Based on available data, the classification criteria are not met.	
Type of examination	In vitro mammalian cell gene mutation test	
Species	Mouse lymphoma cells	
Method	OECD 476	
Source	ECHA	
Evaluation/classification	Based on available data, the classification criteria are not met.	
Type of examination	In vivo mammalian somatic cell study: cytogenicity / erythrocyte micronucleus	
Species	mouse	
Method	OECD 474	
Source	ECHA	
Evaluation/classification	Based on available data, the classification criteria are not met.	
2	ethanol	64-17-5 200-578-6
Source	ECHA	
Evaluation/classification	Based on available data, the classification criteria are not met.	
3	sodium perchlorate	7601-89-0 231-511-9
Source	ECHA	
Evaluation/classification	Based on available data, the classification criteria are not met.	

Reproduction toxicity		
No	Substance name	CAS no. EC no.
1	butanone	78-93-3 201-159-0
Route of exposure	inhalational	
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.	
2	ethanol	64-17-5 200-578-6
Route of exposure	oral	
NOAEL		
Type of examination	2 generation study	
Species	mouse	
Method	OECD 416	
Source	ECHA	
Evaluation/classification	Based on available data, the classification criteria are not met.	
Route of exposure	inhalational	
NOAEL		
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	Substance name	CAS no. EC no.
1	butanone	78-93-3 201-159-0
Source	ECHA	
Evaluation/classification	Based on available data, the classification criteria are not met.	
2	ethanol	64-17-5 200-578-6
Source	ECHA	
Evaluation/classification	Based on available data, the classification criteria are not met.	

STOT - single exposure
No data available
STOT - repeated exposure

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No	Substance name	CAS no.	EC no.
1	butanone	78-93-3	201-159-0
Route of exposure		inhalational	
Species		rat	
Method		OECD 413	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	
2	ethanol	64-17-5	200-578-6
Route of exposure		oral	
Duration of exposure		14	week/s
Species		rat	
Target organ		kidneys	
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	Substance name	CAS no.	EC no.
1	butanone	78-93-3	201-159-0
LC50		2993	mg/l
Duration of exposure		96	h
Species		Pimephales promelas	
Method		OECD 203	
Source		ECHA	
2	ethanol	64-17-5	200-578-6
LC50		14200	mg/l
Duration of exposure		96	h
Species		Pimephales promelas	
Method		EPA	
Source		ECHA	
3	ethyl-acetate	141-78-6	205-500-4
LC50		230	mg/l
Duration of exposure		96	h
Species		Pimephales promelas	
Source		ECHA	
4	sodium perchlorate	7601-89-0	231-511-9
LC50		>	1000 mg/l
Duration of exposure		96	h
Species		Danio rerio	
Method		OECD 203	
Source		ECHA	

Toxicity to fish (chronic)

No data available

Toxicity to Daphnia (acute)

No	Substance name	CAS no.	EC no.
1	butanone	78-93-3	201-159-0

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EC50		308	mg/l
Duration of exposure		48	h
Species	Daphnia magna		
Method	OECD 202		
Source	ECHA		
2	ethanol	64-17-5	200-578-6
EC50		5012	mg/l
Duration of exposure		48	h
Species	Ceriodaphnia dubia		
Method	ASTM Standard E 729-80		
Source	ECHA		
3	ethyl-acetate	141-78-6	205-500-4
EC50		1350	mg/l
Duration of exposure		48	h
Species	Daphnia magna		
Source	ECHA		
4	sodium perchlorate	7601-89-0	231-511-9
EC50	>	100	mg/l
Duration of exposure		48	h
Species	Daphnia magna		
Method	OECD 202		
Source	ECHA		

Toxicity to Daphnia (chronic)			
No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
NOEC		9.6	mg/l
Duration of exposure		9	day(s)
Species	Daphnia magna		
Source	ECHA		
2	sodium perchlorate	7601-89-0	231-511-9
NOEC		10	mg/l
Duration of exposure		7	day(s)
Species	Ceriodaphnia dubia		
Method	EPA 600/4-91/002		
Source	ECHA		

Toxicity to algae (acute)			
No	Substance name	CAS no.	EC no.
1	butanone	78-93-3	201-159-0
EC50		2029	mg/l
Duration of exposure		96	h
Species	Pseudokirchneriella subcapitata		
Method	OECD 201		
Source	ECHA		
2	ethanol	64-17-5	200-578-6
EC50		275	mg/l
Duration of exposure		72	h
Species	Chlorella vulgaris		
Method	OECD 201		
Source	ECHA		
3	sodium perchlorate	7601-89-0	231-511-9
ErC50	>	435.7	mg/l
Duration of exposure		72	h
Species	Pseudokirchneriella subcapitata		
Method	OECD 201		
Source	ECHA		

Toxicity to algae (chronic)			
No data available			

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Bacteria toxicity
No data available

12.2 Persistence and degradability

Biodegradability			
No	Substance name	CAS no.	EC no.
1	butanone	78-93-3	201-159-0
Type		aerobic biodegradation	
Value		98	%
Duration		28	day(s)
Method		OECD 301 D	
Source		ECHA	
Evaluation		readily biodegradable	
2	ethanol	64-17-5	200-578-6
Type		aerobic biodegradation	
Value		appr. 84	%
Duration		20	day(s)
Method		OECD	
Source		ECHA	
Evaluation		readily biodegradable	
Value		%	
3	ethyl-acetate	141-78-6	205-500-4
Source		ECHA	
Evaluation		readily biodegradable	
4	1-methoxy-2-propanol	107-98-2	203-539-1
Type		aerobic biodegradation	
Value		96	%
Duration		28	day(s)
Method		OECD 301 E	
Source		ECHA	
Evaluation		readily biodegradable	

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log value)			
No	Substance name	CAS no.	EC no.
1	butanone	78-93-3	201-159-0
log Pow		0.3	
Reference temperature		40	°C
Method		OECD 117	
Source		ECHA	
2	ethanol	64-17-5	200-578-6
log Pow		-0.35	
Reference temperature		24	°C
with reference to		pH 7,4	
Method		OECD 107	
Source		ECHA	
3	ethyl-acetate	141-78-6	205-500-4
log Pow		6.8	
Reference temperature		25	°C
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

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No data available.

12.7 Other adverse effects

No data available.

12.8 Other information**Other information**

Do not discharge product unmonitored into the environment.

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

Disposal of the product should be carried out in accordance with all applicable regulations following consultation with the responsible local authority and the disposal company in an authorised and suitable disposal facility.

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

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

Class	3
Classification code	F1
Packing group	II
Hazard identification no.	33
UN number	UN1210
Proper shipping name	PRINTING INK
Special Provision 640	640C
Tunnel restriction code	D/E
Label	3

14.2 Transport IMDG

Class	3
Packing group	II
UN number	UN1210
Proper shipping name	PRINTING INK
EmS	F-E, S-D
Label	3

14.3 Transport ICAO-TI / IATA

Class	3
Packing group	II
UN number	UN1210
Proper shipping name	Printing ink
Label	3

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**

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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

The product is considered being subject to REACH regulation (EC) 1907/2006 annex XVII.	No 3, 40
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Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances

This product is subject to Part I of Annex I, risk category:	P5b
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Other regulations

Adhere to the national sanitary and occupational safety regulations when using this product.

15.2 Chemical safety assessment

A Chemical Safety Assessment has been carried out for one or more of the substances within 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)

H226	Flammable liquid and vapour.
H271	May cause fire or explosion; strong oxidiser.
H302	Harmful if swallowed.
H351i	Suspected of causing cancer by inhalation.
H373o	May cause damage to organs through prolonged or repeated exposure if swallowed.

Notes relating to the identification, classification and labelling of substances and mixtures ((EC) No 1272/2008, Annex VI)

V	If the substance is to be placed on the market as fibres (with diameter < 3 µm, length > 5 µm and aspect ratio ≥ 3:1) or particles of the substance fulfilling the WHO fibre criteria or as particles with modified surface chemistry, their hazardous properties must be evaluated in accordance with Title II of this Regulation, to assess whether a higher category (Carc. 1B or 1A) and/or additional routes of exposure (oral or dermal) should be applied.
W	It has been observed that the carcinogenic hazard of this substance arises when respirable dust is inhaled in quantities leading to significant impairment of particle clearance mechanisms in the lung. This note aims to describe the particular toxicity of the substance; it does not constitute a criterion for classification according to this Regulation.
1	The concentration stated or, in the absence of such concentrations, the generic concentrations of this Regulation (Table 3.1) or the generic concentrations of Directive 1999/45/EC (Table 3.2), are the percentages by weight of the metallic element calculated with reference to the total weight of the mixture.

Creation of the safety data sheet

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EU 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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