

Trade name: 70000-00139, ink, black

Current version : 1.0.0, issued: 15.03.2021

Replaced version: -, issued: -

Region: GB

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

1.1 Product identifier

Trade name

70000-00139, ink, black

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
Daimlerstrasse 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)

Aquatic Chronic 3; H412
Eye Irrit. 2; H319
Flam. Liq. 2; H225
Skin Sens. 1; H317
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:

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butanone

A mixture of: tert-alkyl(C12-C14)ammonium bis[1-[(2-hydroxy-5 nitrophenyl)azo]-2-naphthalenolato(2-)]-chromate(1-),
 tert-alkyl(C12 C14)ammonium ((1-(4(or 5)-nitro-2-oxidophenylazo)-2-naphtholato)(1-(3 nitro-2-oxido-5-pentylphenylazo)-2-naphtholato))chroma

butan-1-ol

N-(3-(trimethoxysilyl)propyl)ethylenediamine

Hazard statement(s)

H225 Highly flammable liquid and vapour.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H336 May cause drowsiness or dizziness.
 H412 Harmful to aquatic life with long lasting effects.

Hazard statements (EU)

EUH066 Repeated exposure may cause skin dryness or cracking.
 EUH208 Contains N,N'-bis[3-(trimethoxysilyl)propyl]ethylenediamine. May produce an allergic reaction.

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

The components of this product are not considered to be a PBT.

vPvB assessment

The components of this product are not considered to be a vPvB.

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

Not applicable. The product is not a substance.

3.2 Mixtures**Chemical characterization**

Mixture based on: solvent; dyes; Binder

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	>= 50.00 - < 70.00 wt%
2	A mixture of: tert-alkyl(C12-C14)ammonium bis[1-[(2-hydroxy-5 nitrophenyl)azo]-2-naphthalenolato(2-)]-chromate(1-), tert-alkyl(C12 C14)ammonium ((1-(4(or 5)-nitro-2-oxidophenylazo)-2-naphtholato)(1-(3 nitro-2-oxido-5-pentylphenylazo)-2-naphtholato))chroma		
	117527-94-3	Aquatic Chronic 2; H411	>= 5.00 - < 10.00 wt%

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	403-720-7 611-044-00-0 -			
3	ethanol			
	64-17-5 200-578-6 603-002-00-5 01-2119457610-43	Flam. Liq. 2; H225 Eye Irrit. 2; H319	>= 5.00 - < 10.00	wt%
4	1-methoxy-2-propanol			
	107-98-2 203-539-1 603-064-00-3 01-2119457435-35	Flam. Liq. 3; H226 STOT SE 3; H336	< 5.00	wt%
5	butan-1-ol			
	71-36-3 200-751-6 603-004-00-6 -	Acute Tox. 4*; H302 Eye Dam. 1; H318 Flam. Liq. 3; H226 Skin Irrit. 2; H315 STOT SE 3; H335 STOT SE 3; H336	< 2.50	wt%
6	N-(3-(trimethoxysilyl)propyl)ethylenediamine			
	1760-24-3 217-164-6 - 01-2119970215-39	Skin Sens. 1; H317 Eye Dam. 1; H318 Acute Tox. 4; H332 STOT RE 2; H373i	< 2.50	wt%
7	N,N'-bis[3-(trimethoxysilyl)propyl]ethylenediamine			
	68845-16-9 272-453-4 - -	Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1; H317 STOT SE 3; H335	< 1.00	wt%
8	methanol			
	67-56-1 200-659-6 603-001-00-X -	Acute Tox. 3*; H301 Acute Tox. 3*; H311 Acute Tox. 3*; H331 Flam. Liq. 2; H225 STOT SE 1; H370**	< 2.50	wt%

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

(*, **, ***, ****) Detailed explanation pls. refer to CLP regulation No. 1272/2008, annex VI, 1.2

No	Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)
3	-	Eye Irrit. 2; H319: C >= 50%	-	-
8	-	STOT SE 2; H371: C >= 3% STOT SE 1; H370: C >= 10%	-	-

No	Route, target organ, concrete effect
6	H373 inhalational; respiratory tract; -

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. In case of allergic symptoms, especially respiratory tract related, seek medical help immediately.

After inhalation

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

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After skin contact

Rinse hands with plenty of cold or tepid water and soap.

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

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); Nitrogen oxides (NO_x); chromium 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. Collect contaminated fire extinguishing water separately and dispose of according to legal regulations.

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. In case of entry into waterways, soil or drains, inform the responsible authorities.

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.

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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 15 - 25

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

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/m³	300	ppm
	WEL long-term (8-hr TWA reference period)	600	mg/m³	200	ppm
	List of approved workplace exposure limits (WELs) / EH40				
	Butan-2-one				
	WEL short-term (15 min reference period)	899	mg/m³	300	ppm
	WEL long-term (8-hr TWA reference period)	600	mg/m³	200	ppm
	Comments	Sk, BMGV			
2	A mixture of: tert-alkyl(C12-C14)ammonium bis[1-[(2-hydroxy-5 nitrophenyl)azo]-2-naphthalenolato(2-)]-chromate(1-), tert-alkyl(C12 C14)ammonium ((1-(4(or 5)-nitro-2-oxidophenylazo)-2-naphtholato)(1-(3 nitro-2-oxido-5-pentylphenylazo)-2-naphtholato))chroma	117527-94-3		403-720-7	
	List of approved workplace exposure limits (WELs) / EH40				
	Chromium (VI) compounds (as Cr)				
	WEL long-term (8-hr TWA reference period)	0.01	mg/m³		
	Comments	Carc, sen, BMGV			
	List of approved workplace exposure limits (WELs) / EH40				
	Chromium (VI) compounds (as Cr)				
	WEL long-term (8-hr TWA reference period)	0,025	mg/m³		
		(process generated)1			
	Comments	Carc, sen, BMGV			
3	ethanol	64-17-5		200-578-6	

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	List of approved workplace exposure limits (WELs) / EH40				
	Ethanol				
	WEL long-term (8-hr TWA reference period)	1920	mg/m³	1000	ppm
4	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/m³	150	ppm
	WEL long-term (8-hr TWA reference period)	375	mg/m³	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/m³	150	ppm
	WEL long-term (8-hr TWA reference period)	375	mg/m³	100	ppm
	Comments	Sk			
5	butan-1-ol	71-36-3	200-751-6		
	List of approved workplace exposure limits (WELs) / EH40				
	Butan-1-ol				
	WEL short-term (15 min reference period)	154	mg/m³	50	ppm
	Comments	Sk			
6	methanol	67-56-1	200-659-6		
	2006/15/EC				
	Methanol				
	WEL long-term (8-hr TWA reference period)	260	mg/m³	200	ppm
	Skin resorption / sensibilisation	Skin			
	List of approved workplace exposure limits (WELs) / EH40				
	Methanol				
	WEL short-term (15 min reference period)	333	mg/m³	250	ppm
	WEL long-term (8-hr TWA reference period)	266	mg/m³	200	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			78-93-3 201-159-0	
	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	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 (acute)	local	553.5	mg/m ³
4	N-(3-(trimethoxysilyl)propyl)ethylenediamine			1760-24-3 217-164-6	
	inhalative	Long term (chronic)	systemic	260	mg/m ³
	inhalative	Short term (acute)	systemic	260	mg/m ³
	inhalative	Long term (chronic)	local	0.6	mg/m ³
	inhalative	Short term (acute)	local	67	mg/m ³

DNEL value (consumer)

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
	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	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
4	N-(3-(trimethoxysilyl)propyl)ethylenediamine			1760-24-3 217-164-6
	oral	Long term (chronic)	systemic	8 mg/kg/day
	inhalative	Long term (chronic)	systemic	50 mg/m ³
	inhalative	Long term (chronic)	local	0.1 mg/m ³
	inhalative	Short term (acut)	local	4 mg/m ³

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
	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	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		

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	soil	-	5.49	mg/kg
	with reference to: dry weight			
	sewage treatment plant	-	100	mg/L
4	N-(3-(trimethoxysilyl)propyl)ethylenediamine		1760-24-3 217-164-6	
	water	fresh water	0.062	mg/L
	water	marine water	0.006	mg/L
	water	fresh water sediment	0.22	mg/kg dry weight
	water	marine water sediment	0.022	mg/kg dry weight
	soil	-	0.009	mg/kg dry weight
	sewage treatment plant	-	25	mg/L

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.

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 > 0.7 mm

Other

Normal chemical work clothing.

Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

State of aggregation	
solid	
Form/Colour	
black	
Odour	
solvent-like	
pH value	
No data available	
Boiling point / boiling range	
Value	79 - 110 °C

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Method	DIN 51751		
Source	supplier		
Melting point/freezing point			
No data available			
Decomposition temperature			
No data available			
Flash point			
Value	-2 °C		
Method	DIN 51755		
Source	supplier		
Ignition temperature			
Value	514 °C		
Method	DIN 51794		
Source	supplier		
Flammability			
No data available			
Lower explosion limit			
Value	1.8 % vol		
Method	DIN 51649		
Source	supplier		
Upper explosion limit			
Value	11.5 % vol		
Method	DIN 51649		
Source	supplier		
Vapour pressure			
No data available			
Relative vapour density			
No data available			
Relative density			
No data available			
Density			
Value	0.905 - 0.915 g/cm³		
Reference temperature	20 °C		
Method	ISO 2811		
Source	supplier		
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		
Viscosity			

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Value	5.2 - 5.6 mPa*s
Method	DIN 53019
Source	supplier

Particle characteristics

No data available

9.2 Other information**Other information**

No data available.

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	70000-00139, ink, black
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	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		

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4	N-(3-(trimethoxysilyl)propyl)ethylenediamine	1760-24-3	217-164-6
LD50		2295	mg/kg bodyweight
Species	rat		
Method	EPA OPPTS 870.1100		
Source	ECHA		

Acute dermal toxicity (result of the ATE calculation for the mixture)

No	Product Name
1	70000-00139, ink, black
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 dermal > 2000 mg/kg).

Acute dermal toxicity

No	Substance name	CAS no.	EC no.
1	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		
2	N-(3-(trimethoxysilyl)propyl)ethylenediamine	1760-24-3	217-164-6
LD50	>	2000	mg/kg bodyweight
Species	rabbit		
Method	EPA OPPTS 870.1200		
Source	ECHA		

Acute inhalational toxicity (result of the ATE calculation for the mixture)

No	Product Name
1	70000-00139, ink, black
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 for inhalation: > 20.000 ppmV (gases), > 20 mg/l (vapours), > 5 mg/l (dusts/mists).

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		
2	N-(3-(trimethoxysilyl)propyl)ethylenediamine	1760-24-3	217-164-6
LC50	> 1.49	- 2.44	mg/l
Duration of exposure		4	h
State of aggregation	Dust/mist		
Species	rat		
Method	EPA OPPTS 830.1300		
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		

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Source Evaluation	ECHA / Read across non-irritant
2	ethanol 64-17-5 200-578-6
Species	rabbit
Method	OECD 404
Source	ECHA
Evaluation	non-irritant
3	1-methoxy-2-propanol 107-98-2 203-539-1
Species	rabbit
Method	EC 440/2008, B.4
Source	ECHA
Evaluation	non-irritant

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		
Species	rabbit		
Method	OECD 405		
Source	ECHA		
Evaluation	irritant		
3	1-methoxy-2-propanol 107-98-2 203-539-1		
Species	rabbit		
Method	2004/73/EEC, B.5		
Source	ECHA		
Evaluation	non-irritant		
4	N-(3-(trimethoxysilyl)propyl)ethylenediamine 1760-24-3 217-164-6		
Species	rabbit		
Method	OECD 405		
Source	ECHA		
Evaluation	Irreversible effects on the eye		

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	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		
4	N-(3-(trimethoxysilyl)propyl)ethylenediamine 1760-24-3 217-164-6		
Route of exposure	Skin		
Species	guinea pig		
Method	OECD 406		
Source	ECHA		

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Evaluation	sensitizing
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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.	
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.	

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

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Source	ECHA
Evaluation/classification	Based on available data, the classification criteria are not met.
STOT - single exposure	
No data available	
STOT - repeated exposure	
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.
3	N-(3-(trimethoxysilyl)propyl)ethylenediamine
1760-24-3	217-164-6
Route of exposure	inhalational
NOAEC	appr. 45 mg/m ³
Duration of exposure	13 week/s
Species	rat
Target organ	respiratory tract
Method	OECD 413
Source	ECHA
Effects	Causes damage to organs.
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	N-(3-(trimethoxysilyl)propyl)ethylenediamine	1760-24-3	217-164-6
LC50		597	mg/l

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Duration of exposure	96	h
Species	Danio rerio	
Method	EU C.1	
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
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	N-(3-(trimethoxysilyl)propyl)ethylenediamine	1760-24-3	217-164-6
EC50		81	mg/l
Duration of exposure		48	h
Species	Daphnia magna		
Method	EU C.2		
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		

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	N-(3-(trimethoxysilyl)propyl)ethylenediamine	1760-24-3	217-164-6
EC50		8.8	mg/l
Duration of exposure		72	h
Species	Pseudokirchneriella subcapitata		
Method	OECD 201		
Source	ECHA		

Toxicity to algae (chronic)

No data available

Bacteria toxicity

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No	Substance name	CAS no.	EC no.
1	N-(3-(trimethoxysilyl)propyl)ethylenediamine	1760-24-3	217-164-6
EC50		67	mg/l
Duration of exposure		16	h
Species	Pseudomonas putida		
Method	DIN 38412 T.8		
Source	ECHA		

12.2 Persistence and degradability

Biodegradability			
No	Substance name	CAS no.	EC no.
1	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	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		
4	N-(3-(trimethoxysilyl)propyl)ethylenediamine	1760-24-3	217-164-6
Type	DOC decrease		
Value		39	%
Duration		28	day(s)
Method	EU. C-4-A		
Source	ECHA		
Evaluation	not 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		

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

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PBT assessment	The components of this product are not considered to be a PBT.
vPvB assessment	The components of this product are not considered to be a vPvB.

12.6 Endocrine disrupting properties

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.
 Do not discharge into the drains or waters and do not store on public depositories.

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

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SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)

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

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

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

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

The product is considered being subject to REACH regulation (EC) 1907/2006 annex XVII.	No 3, 40
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The product contains following substance(s) that are considered being subject to REACH regulation (EC) 1907/2006 annex XVII.

No	Substance name	CAS no.	EC no.	No
1	methanol	67-56-1	200-659-6	69

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.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H370	Causes damage to organs.
H373i	May cause damage to organs through prolonged or repeated exposure if inhaled.
H411	Toxic to aquatic life with long lasting effects.

Creation of the safety data sheet

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This information is based on our present knowledge and experience.
The safety data sheet describes products with a view to safety requirements.
It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

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