

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Ink Refill Set "red"

Revision date: 13.03.2024

Product code 55840

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

1.1. Product identifier

Ink Refill Set red 55840

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

Use of the substance/mixture

Reserved for industrial and professional use.

Sector of uses [SU]:

- Articles for printing and writing:
- Pens

1.3. Details of the supplier of the safety data sheet

Company name: Pica-Marker GmbH
Street: Picastraße 5
Place: D-91356 Kirchehrenbach

Telephone: +49 (0)9191 320403-90
e-mail: info@pica-marker.com
Contact person: Stephan Möck

Telephone: +49 (0)9191 320403-50

e-mail: stephan.moeck@pica-marker.com
Internet: <http://www.pica-marker.com/>

1.4. Emergency telephone number: +49 (0)89-19240 (Germany)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Flammable liquid: Flam. Liq. 2

Acute toxicity: Acute Tox. 4

Serious eye damage/eye irritation: Eye Dam. 1

Respiratory or skin sensitisation: Skin Sens. 1A

Specific target organ toxicity - single exposure: STOT SE 3

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

Highly flammable liquid and vapour.

Harmful if inhaled.

Causes serious eye damage.

May cause an allergic skin reaction.

May cause drowsiness or dizziness.

Harmful to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008

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Hazard components for labelling

propan-1-ol; n-propanol

Tetrakis(9-[2-(ethoxycarbonyl)phenyl]-3,6-bis(ethylamino)-2,7-dimethylxanthylium) C12-(branched and/or linear)-alkyl-(4-sulfonatophenoxy)benzenesulfonate and oxybis[C12-(branched and/or linear)-alkyl-benzenesulfonate]

Basic Orange 21 derivate

Basic Yellow 28 derivate

Signal word: Danger

Pictograms:



Hazard statements

H225	Highly flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
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 dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P501	Dispose of contents/container to an appropriate recycling or disposal facility.
P370+P378	In case of fire: Use sand, extinguishing powder or alcohol-resistant foam to extinguish.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P233	Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

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3.2. Mixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
64-17-5	ethanol; ethyl alcohol			45 - < 50 %
	200-578-6	603-002-00-5	01-2119457610-43	
	Flam. Liq. 2; H225			
71-23-8	propan-1-ol; n-propanol			30 - < 35 %
	200-746-9		01-2119486761-29	
	Flam. Liq. 2, Eye Dam. 1, STOT SE 3; H225 H318 H336			
	Tetrakis[9-[2-(ethoxycarbonyl)phenyl]-3,6-bis(ethylamino)-2,7-dimethylxanthylum] C12-(branched and/or linear)-alkyl-(4-sulfonatophenoxy)benzenesulfonate and oxybis[C12-(branched and/or linear)-alkyl-benzenesulfonate]			1 - < 5 %
	700-761-5		01-2119935914-30	
	Acute Tox. 4, Eye Dam. 1, Skin Sens. 1A, STOT SE 3, Aquatic Chronic 2; H302 H318 H317 H335 H411			
	Basic Orange 21 derivate			1 - < 5 %
	Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3; H332 H312 H315 H319 H335			
54060-92-3	Basic Yellow 28 derivate			1 - < 5 %
	258-946-7			
	Acute Tox. 2, Acute Tox. 3, Acute Tox. 4, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 1; H330 H301 H312 H318 H400 H410			
78-93-3	butanone; ethyl methyl ketone			< 1 %
	201-159-0	606-002-00-3		
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066			
112-34-5	2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether			< 0.1 %
	203-961-6	603-096-00-8		
	Eye Irrit. 2; H319			

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

- When in doubt or if symptoms are observed, get medical advice.
- Never give anything by mouth to an unconscious person or a person with cramps.
- If unconscious place in recovery position and seek medical advice.

After inhalation

- Provide fresh air. Medical treatment necessary. Remove casualty to fresh air and keep warm and at rest.
- If breathing is irregular or stopped, administer artificial respiration.

After contact with skin

- Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.
- Immediately remove any contaminated clothing, shoes or stockings.
- After contact with skin, wash immediately with plenty of water and soap.
- Do not wash with: Solvents/Thinner

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After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

After ingestion

If swallowed, rinse mouth with water (only if the person is conscious).
Call a physician immediately.
Put victim at rest, cover with a blanket and keep warm.
Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray jet⁰ Carbon dioxide (CO₂)⁰ Foam⁰ Extinguishing powder. alcohol resistant foam, Carbon dioxide (CO₂), Extinguishing powder, Water mist

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Highly flammable. Vapours can form explosive mixtures with air. Burning produces heavy smoke.
Hazardous decomposition products: carbon black. Danger of serious damage to health by prolonged exposure.
Use appropriate respiratory protection.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit. Use water spray jet to protect personnel and to cool endangered containers.
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment. Keep away from sources of ignition - No smoking. Ventilate affected area.

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

Safe handling: see section 7

Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Explosion risk. Do not allow to enter into surface water or drains.

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

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6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Prevent spread over a wide area (e.g. by containment or oil barriers). Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Collect in closed and suitable containers for disposal. Disposal: see section 13

Clean with detergents. Avoid solvent cleaners.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop. Only use the material in places where open light, fire and other flammable sources can be kept away.

Use explosion-proof electrical equipment. Filling and transfer: Take precautionary measures against static discharges. Provide earthing of containers, equipment, pumps and ventilation facilities. Wear anti-static footwear and clothing Use only antistatically equipped (spark-free) tools.

Avoid contact with skin, eyes and clothes. Avoid: Inhalation of vapours or spray/mists, Inhalation of dust/particles. When using do not eat, drink or smoke.

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

Never use pressure to empty container. Keep/Store only in original container.

Do not allow to enter into surface water or drains.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.

Vapours can form explosive mixtures with air. Solvent - Vapours are heavier than air, spread along floors and form explosive mixtures with air.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only.

Provide adequate ventilation as well as local exhaustion at critical locations. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Store in accordance with: Betriebssicherheitsverordnung (BetrSichV).

Hints on joint storage

Do not store together with: Oxidizing agent. Pyrophoric or self-heating substances. Do not store together with: Oxidising agent, Strong acid, Strong alkali

Further information on storage conditions

Notice the directions for use on the label.

storage temperature of °C 10 up to °C 40.

Keep container tightly closed in a cool, well-ventilated place. Protect from sunlight. Keep away from sources of ignition - No smoking. Store in a place accessible by authorized persons only. Always close containers tightly after the removal of product.

7.3. Specific end use(s)

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Reserved for industrial and professional use.

Sector of uses [SU]:

- Articles for printing and writing:
- Pens

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
112-34-5	2-(2-Butoxyethoxy)ethanol	10	67.5		TWA (8 h)	WEL
		15	101.2		STEL (15 min)	WEL
78-93-3	Butan-2-one (methyl ethyl ketone)	200	600		TWA (8 h)	WEL
		300	899		STEL (15 min)	WEL
64-17-5	Ethanol	1000	1920		TWA (8 h)	WEL
71-23-8	Propan-1-ol	200	500		TWA (8 h)	WEL
		250	625		STEL (15 min)	WEL

Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
78-93-3	Butan-2-one	butan-2-one	70 µmol/L	urine	Post shift

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DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
64-17-5	ethanol; ethyl alcohol			
Worker DNEL, long-term		inhalation	systemic	950 mg/m ³
Worker DNEL, long-term		dermal	systemic	343 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	114 mg/m ³
Consumer DNEL, long-term		dermal	systemic	206 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	87 mg/kg bw/day
71-23-8	propan-1-ol; n-propanol			
Worker DNEL, long-term		inhalation	systemic	268 mg/m ³
Worker DNEL, acute		inhalation	systemic	1723 mg/m ³
Worker DNEL, long-term		dermal	systemic	136 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	80 mg/m ³
Consumer DNEL, acute		inhalation	systemic	1036 mg/m ³
Consumer DNEL, long-term		dermal	systemic	81 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	61 mg/kg bw/day
54060-92-3	Basic Yellow 28 derivate			
Worker DNEL, long-term		inhalation	systemic	1,12 mg/m ³
Worker DNEL, long-term		dermal	systemic	0,32 mg/kg bw/day
78-93-3	butanone; ethyl methyl ketone			
Worker DNEL, long-term		inhalation	systemic	600 mg/m ³
Worker DNEL, long-term		dermal	systemic	1161 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	106 mg/m ³
Consumer DNEL, long-term		dermal	systemic	412 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	31 mg/kg bw/day
112-34-5	2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether			
Worker DNEL, long-term		inhalation	systemic	67,5 mg/m ³
Worker DNEL, long-term		inhalation	local	67,5 mg/m ³
Worker DNEL, acute		inhalation	local	101,2 mg/m ³
Worker DNEL, long-term		dermal	systemic	83 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	40,5 mg/m ³
Consumer DNEL, long-term		inhalation	local	40,5 mg/m ³
Consumer DNEL, acute		inhalation	local	60,7 mg/m ³
Consumer DNEL, long-term		dermal	systemic	50 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	5 mg/kg bw/day

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PNEC values

CAS No	Substance	Value
Environmental compartment		Value
64-17-5	ethanol; ethyl alcohol	
Freshwater		0,96 mg/l
Freshwater (intermittent releases)		2,75 mg/l
Marine water		0,79 mg/l
Freshwater sediment		3,6 mg/kg
Marine sediment		2,9 mg/kg
Secondary poisoning		380 mg/kg
Micro-organisms in sewage treatment plants (STP)		580 mg/l
Soil		0,63 mg/kg
71-23-8	propan-1-ol; n-propanol	
Freshwater		6,83 mg/l
Freshwater (intermittent releases)		10 mg/l
Marine water		0,683 mg/l
Freshwater sediment		27,5 mg/kg
Marine sediment		2,75 mg/kg
Micro-organisms in sewage treatment plants (STP)		96 mg/l
Soil		1,49 mg/kg
54060-92-3	Basic Yellow 28 derivate	
Freshwater		0,00021 mg/l
Freshwater (intermittent releases)		0,0021 mg/l
Marine water		0,000021 mg/l
Freshwater sediment		0,000815 mg/kg
Marine sediment		0,000081 mg/kg
Micro-organisms in sewage treatment plants (STP)		0,59 mg/l
Soil		0,00004 mg/kg
78-93-3	butanone; ethyl methyl ketone	
Freshwater		55,8 mg/l
Freshwater (intermittent releases)		55,8 mg/l
Marine water		55,8 mg/l
Freshwater sediment		284,74 mg/kg
Marine sediment		284,7 mg/kg
Secondary poisoning		1000 mg/kg
Micro-organisms in sewage treatment plants (STP)		709 mg/l
Soil		22,5 mg/kg
112-34-5	2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether	
Freshwater		1,1 mg/l
Freshwater (intermittent releases)		11 mg/l
Marine water		0,11 mg/l
Freshwater sediment		4,4 mg/kg
Marine sediment		0,44 mg/kg

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Secondary poisoning	56 mg/kg
Micro-organisms in sewage treatment plants (STP)	200 mg/l
Soil	0,32 mg/kg

8.2. Exposure controls



Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. Provide adequate ventilation.

If handled uncovered, arrangements with local exhaust ventilation should be used if possible.

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.

Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff.

Eye/face protection

Suitable eye protection: goggles. Wear eye/face protection.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Wear suitable gloves. Replace when worn. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. See information supplied by the manufacturer.

Suitable material:

Nitrilkautschuk/Nitrillatex - NBR (0,35 mm)

Butylkautschuk - Butyl (0,5 mm)

Fluorkautschuk - FKM (0,4 mm)

Breakthrough time (maximum wearing time): >8 h

Use protective skin cream before handling the product.

Skin protection

Flame-retardant protective clothing. Wear anti-static footwear and clothing. Wear anti-static footwear and clothing (Natural fibres (e.g. cotton) / heat-resistant synthetic fibres)

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Respiratory protection necessary at: exceeding exposure limit values.

Use suitable breathing apparatus.

Environmental exposure controls

Do not allow to enter into surface water or drains.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid
Colour: red

Test method

pH-Value: not determined

Changes in the physical state

Melting point: not determined

Initial boiling point and boiling range: 78 °C

Flash point: 12 °C DIN 53213

Flammability

Solid: not applicable

Gas: not applicable

Lower explosion limits: 2,1 vol. %

Upper explosion limits: 15 vol. %

Ignition temperature: 340 °C

Auto-ignition temperature

Solid: not applicable

Gas: not applicable

Decomposition temperature: not determined

Oxidizing properties

Not oxidising.

Vapour pressure: 58 hPa
(at 20 °C)

Density (at 20 °C): not determined DIN 53217

Water solubility: easily soluble

Solubility in other solvents

not determined

Partition coefficient: not determined

Viscosity / dynamic: 3,0 mPa·s

Vapour density: not determined

Evaporation rate: not determined

9.2. Other information

Solid content: not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Exothermic reaction with: Oxidising agent, Strong acid, Strong alkali

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10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air. In case of warming: Formation of: Hazardous decomposition products

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

Nitrogen oxides (NOx), carbon black, Carbon dioxide (CO₂), Carbon monoxide

SECTION 11: Toxicological information

11.1. Information on toxicological effects

ATEmix calculated

ATE (inhalation aerosol) 3,000 mg/l

Acute toxicity

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
64-17-5	ethanol; ethyl alcohol				
	oral	LD50 mg/kg	10470	Rat	Study report (1976) OECD Guideline 401
	inhalation (4 h) vapour	LC50 mg/l	124,7	Rat	Study report (1980) OECD Guideline 403
71-23-8	propan-1-ol; n-propanol				
	oral	LD50 mg/kg	ca. 8000	Rat	Study report (1975) OECD Guideline 401
	dermal	LD50 mg/kg	4032	Rabbit	Arch. ind. hyg. occupat. med. 10, 61-68. OECD Guideline 402
	Tetrakis[9-[2-(ethoxycarbonyl)phenyl]-3,6-bis(ethylamino)-2,7-dimethylxanthylum] C12-(branched and/or linear)-alkyl-(4-sulfonatophenoxy)benzenesulfonate and oxybis[C12-(branched and/or linear)-alkyl-benzenesulfonate]				
	oral	LD50 mg/kg	2000	Rat	
	Basic Orange 21 derivate				
	oral	LD50 mg/kg	2000	Rat	
	dermal	ATE mg/kg	1100		
	inhalation vapour	ATE	11 mg/l		
	inhalation aerosol	ATE	1,5 mg/l		
54060-92-3	Basic Yellow 28 derivate				
	oral	LD50 mg/kg	841	Rat	Study report (1982) OECD Guideline 401
	dermal	LD50 mg/kg	ca. 2000	Rat	Study report (1981) OECD Guideline 402
	inhalation vapour	ATE	0,5 mg/l		
	inhalation aerosol	ATE	0,05 mg/l		
112-34-5	2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether				
	oral	LD50 mg/kg	2410	Mouse	Study report (1981) OECD Guideline 401

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	dermal	LD50 mg/kg	2764	Rabbit	Study report (1981)	OECD Guideline 402
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Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

Practical experience

Observations relevant to classification

Following inhalation:

Adverse human health effects and symptoms: May cause respiratory irritation. May cause damage to liver if inhaled. May cause damage to kidneys if inhaled. Depression of central nervous system.

Symptoms: Headache, Dizziness, Drowsiness, Unconsciousness

After eye contact:

Irritating to eyes. (reversible.)

After ingestion:

Symptoms: Nausea, Vomiting, Gastrointestinal complaints

Following skin contact:

The product is skin resorptive. Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).

Further information

There are no data available on the mixture itself.

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

Reference to other sections: 2, 3

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
64-17-5	ethanol; ethyl alcohol					
	Acute fish toxicity	LC50 mg/l	15400	96 h	Lepomis macrochirus	Bulletin of Environmental Contamination other: EPA-660/3-75-009, 1975
	Acute algae toxicity	ErC50 mg/l	ca. 22000	96 h	Pseudokirchneriella subcapitata	Ecotoxicology and Environmental Safety 7 OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	> 10000	48 h	Daphnia magna	Water Research 23(4): 495-499 (1989) other: DIN 38412 Teil 11
	Fish toxicity	NOEC mg/l	> 79	100 d	Oryzias latipes	Environmental Toxicology and Chemistry, Chronic effects of substance on reproduc
	Algae toxicity	NOEC mg/l	5400	5 d	Skeletonema costatum	Environ Toxicol Chem 8(5):451-455. (1989) Study to determine the sensitivity of a
	Crustacea toxicity	NOEC mg/l	2	10 d	Ceriodaphnia dubia	Arch Environ Contam Toxicol 20(2):211-21 Follows the basic methodology for the th
71-23-8	propan-1-ol; n-propanol					
	Acute fish toxicity	LC50 mg/l	4555	96 h	Pimephales promelas	Vol. 1, pp 3, 5-16, 65-68. Center for La OECD Guideline 203
	Acute crustacea toxicity	EC50 mg/l	3644	48 h	Daphnia magna	Water Res 23: 495-499 (1989) other: DIN 38412 Part 11, Daphnia-Short
	Crustacea toxicity	NOEC mg/l	> 100	21 d	Daphnia magna	Study report (1997) OECD Guideline 211
54060-92-3	Basic Yellow 28 derivate					
	Acute fish toxicity	LC50 mg/l	10 - 100	96 h	Leuciscus idus melanotus	Study report (1979) OECD Guideline 203
	Acute algae toxicity	ErC50 mg/l	0,14	72 h	Desmodesmus subspicatus	Study report (1992) OECD Guideline 201
	Acute bacteria toxicity	(59 mg/l)		0,5 h	activated sludge of a predominantly domestic sewage	Study report (1993) OECD Guideline 209
78-93-3	butanone; ethyl methyl ketone					
	Acute fish toxicity	LC50 mg/l	2993	96 h	Pimephales promelas	Study report (1998) OECD Guideline 203
	Acute algae toxicity	ErC50 mg/l	2029	96 h	Pseudokirchneriella subcapitata	Study report (1998) OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	308	48 h	Daphnia magna	Study report (1998) OECD Guideline 202
112-34-5	2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether					
	Acute fish toxicity	LC50 mg/l	1300	96 h	Lepomis macrochirus	J Haz Mat, 1, p303-18 (1977) OECD Guideline 203
	Acute algae toxicity	ErC50 mg/l	> 100	96 h	Desmodesmus subspicatus	Study report (1992) OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	> 100	48 h	Daphnia magna	Study report (1992) EU Method C.2

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12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
64-17-5	ethanol; ethyl alcohol	-0,77
71-23-8	propan-1-ol; n-propanol	1,6
54060-92-3	Basic Yellow 28 derivat	-1,1
78-93-3	butanone; ethyl methyl ketone	0,3
112-34-5	2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether	1

BCF

CAS No	Chemical name	BCF	Species	Source
64-17-5	ethanol; ethyl alcohol	1	Cyprinus carpio	Comparative Biochemi
71-23-8	propan-1-ol; n-propanol	0,88		Unpublished calculat

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. There are no data available on the mixture itself.

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation. Do not allow to enter into surface water or drains.

Dispose according to legislation.

List of Wastes Code - residues/unused products

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other hazardous substances; hazardous waste

List of Wastes Code - contaminated packaging

080312 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of printing inks; waste ink containing hazardous substances; hazardous waste

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

Dispose according to legislation.

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SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 1263

14.2. UN proper shipping name: PAINT

14.3. Transport hazard class(es): 3

14.4. Packing group: II

Hazard label: 3



Classification code: F1
Special Provisions: 163 367 640D 650
Limited quantity: 5 L
Excepted quantity: E2
Transport category: 2
Hazard No: 33
Tunnel restriction code: D/E

Inland waterways transport (ADN)

14.1. UN number: UN 1263

14.2. UN proper shipping name: Paint

14.3. Transport hazard class(es): 3

14.4. Packing group: II

Hazard label: 3



Classification code: F1
Special Provisions: 163 367 640D 650

Safety Data Sheet

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Limited quantity: PAINT
 5 L 3
 Excepted quantity: II
 E2

Marine transport (IMDG)

14.1. UN number:

UN 1263

14.2. UN proper shipping name:

PAINT

14.3. Transport hazard class(es):3

14.4. Packing group: II

Hazard label: 3



Special Provisions:

163, 367

Limited quantity:

5 L

Excepted quantity:

E2

EmS:

F-E, S-E

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number:

UN 1263

14.2. UN proper shipping name:

14.3. Transport hazard class(es):

14.4. Packing group:

Hazard label: 3



Special Provisions:

A3 A72 A192

Limited quantity Passenger:

1 L

Passenger LQ:

Y341

Excepted quantity:

E2

IATA-packing instructions - Passenger: 353

IATA-max. quantity - Passenger: 5 L

IATA-packing instructions - Cargo: 364

IATA-max. quantity - Cargo: 60 L

14.6. Special precautions for user

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Warning: Combustible liquid.

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

not applicable

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 55: 2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether

2010/75/EU (VOC): 77,04 %

2004/42/EC (VOC): 77,08 %

Information according to 2012/18/EU (SEVESO III): P5c FLAMMABLE LIQUIDS

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 3 - strongly hazardous to water

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

Additional information

Observe in addition any national regulations!

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s):

1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16.

Abbreviations and acronyms

CLP: Classification, labelling and Packaging

REACH: Registration, Evaluation and Authorization of Chemicals

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

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UN: United Nations
 CAS: Chemical Abstracts Service
 DNEL: Derived No Effect Level
 DMEL: Derived Minimal Effect Level
 PNEC: Predicted No Effect Concentration
 ATE: Acute toxicity estimate
 LC50: Lethal concentration, 50%
 LD50: Lethal dose, 50%
 LL50: Lethal loading, 50%
 EL50: Effect loading, 50%
 EC50: Effective Concentration 50%
 ErC50: Effective Concentration 50%, growth rate
 NOEC: No Observed Effect Concentration
 BCF: Bio-concentration factor
 PBT: persistent, bioaccumulative, toxic
 vPvB: very persistent, very bioaccumulative
 ADR: Accord européen sur le transport des marchandises dangereuses par Route
 (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 RID: Regulations concerning the international carriage of dangerous goods by rail
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation
 intérieures)
 IMDG: International Maritime Code for Dangerous Goods
 EmS: Emergency Schedules
 MFAG: Medical First Aid Guide
 IATA: International Air Transport Association
 ICAO: International Civil Aviation Organization
 MARPOL: International Convention for the Prevention of Marine Pollution from Ships
 IBC: Intermediate Bulk Container
 VOC: Volatile Organic Compounds
 SVHC: Substance of Very High Concern
 For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Acute Tox. 4; H332	Calculation method
Eye Dam. 1; H318	Calculation method
Skin Sens. 1A; H317	Calculation method
STOT SE 3; H336	Calculation method
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.

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H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects .
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects .
EUH066	Repeated exposure may cause skin dryness or cracking.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)