

ORALITE 5017

Revision date: 07/25/2023

Product code: ORALITE_5017

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1. Identification

Product identifier

ORALITE 5017

Further trade names

Color: CYAN, MAGENTA, YELLOW, ROT, SCHWARZ

Recommended use of the chemical and restrictions on use

Use of the substance/mixture

Commercial printing inks, toners and related finishing products

Uses advised against

Do not use for private purposes (household).

Details of the supplier of the safety data sheet

Company name:	ORAFOL Europe GmbH	
	Germany	
Street:	Orafolstraße 1	
Place:	D-16515 Oranienburg	
Telephone:	+ 49 3301 864 0	Telefax: + 49 3301 864 100
E-mail:	msds@orafol.de	
Contact person:	EHSQ Department	
Internet:	www.orafol.com	

Emergency phone number: American Association of Poison Control Centers 1-800-222-1222.

2. Hazard(s) identification

Classification of the chemical

Regulation (EC) No 1272/2008

Skin Irrit. 2; H315
Eye Dam. 1; H318

Full text of hazard statements: see SECTION 16.

Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

gamma-Butyrolactone

Signal word: Danger

Pictograms:



Hazard statements

H315 Causes skin irritation
H318 Causes serious eye damage

Precautionary statements

P264 Wash hands thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 If on skin: Wash with plenty of water.
P305 If in eyes:
P351 Rinse cautiously with water for several minutes.
P338 Remove contact lenses, if present and easy to do. Continue rinsing.

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P310 Immediately call a poison center/doctor.
 P362 Take off contaminated clothing.

Hazards not otherwise classified

No information available.

3. Composition/information on ingredients
Mixtures
Hazardous components

CAS No	Components			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
112-36-7	Bis(2-ethoxyethyl)ether			50 - 100 %
	203-963-7		01-2119969946-13	
	Skin Irrit. 2; H315			
96-48-0	gamma-Butyrolactone			3 - 20 %
	202-509-5		01-2119471839-21	
	Acute Tox. 4, Eye Dam. 1, STOT SE 3; H302 H318 H336			

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

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Components	Quantity
		Specific Conc. Limits, M-factors and ATE	
112-36-7	203-963-7	Bis(2-ethoxyethyl)ether	50 - 100 %
		oral: LD50 = 6500 mg/kg	
96-48-0	202-509-5	gamma-Butyrolactone	3 - 20 %
		inhalation: LC50 = 5,1 mg/l (dusts or mists); oral: LD50 = 1582 mg/kg	

4. First-aid measures
Description of first aid measures
After inhalation

Provide fresh air.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

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.

After ingestion

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

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. Fire-fighting measures
Extinguishing media

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Suitable extinguishing mediaCarbon dioxide (CO₂), alcohol resistant foam, Extinguishing powder, Water spray jet**Unsuitable extinguishing media**

Full water jet

Specific hazards arising from the chemicalHazardous combustion products: Carbon monoxide, Carbon dioxide (CO₂)**Special protective equipment and precautions for fire-fighters**

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Fire class: B

Additional information

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

6. Accidental release measures**Personal precautions, protective equipment and emergency procedures****General advice**

Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/fume/vapor/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Explosion risk.

Methods and material for containment and cleaning up**For cleaning up**

Take up carefully when dry. Treat the recovered material as prescribed in the section on waste disposal.

Reference to other sections

Safe handling: see section 7

Personal protection equipment (PPE): see section 8

Disposal: see section 13

7. Handling and storage**Precautions for safe handling****Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fume/vapor/spray.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapors may form explosive mixtures with air.

Advice on general occupational hygiene

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.

Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed. Keep cool. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints on joint storage

Do not store together with: Oxidizing agent. Pyrophoric or self-heating substances.

Specific end use(s)

Commercial printing inks, toners and related finishing products

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8. Exposure controls/personal protection

Control parameters

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
112-36-7	Bis(2-ethoxyethyl)ether			
Worker DNEL, long-term		inhalation	systemic	50,05 mg/m ³
Worker DNEL, long-term		dermal	systemic	3,43 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	5,96 mg/m ³
Consumer DNEL, long-term		dermal	systemic	1,71 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	1,71 mg/kg bw/day
96-48-0	gamma-Butyrolactone			
Worker DNEL, acute		inhalation	systemic	958 mg/m ³
Consumer DNEL, long-term		inhalation	systemic	28 mg/m ³
Consumer DNEL, long-term		oral	systemic	8 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	130 mg/m ³
Worker DNEL, long-term		dermal	systemic	19 mg/kg bw/day
Consumer DNEL, acute		inhalation	systemic	340 mg/m ³
Consumer DNEL, long-term		dermal	systemic	8 mg/kg bw/day

PNEC values

CAS No	Substance	Value
96-48-0	gamma-Butyrolactone	
Freshwater		0,056 mg/l
Freshwater (intermittent releases)		0,56 mg/l
Marine water		0,006 mg/l
Freshwater sediment		0,24 mg/kg
Marine sediment		0,02 mg/kg
Micro-organisms in sewage treatment plants (STP)		452 mg/l
Soil		0,015 mg/kg

Additional advice on limit values

To date, no national critical limit values exist.

Exposure controls



Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fume/vapor/spray.

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Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: goggles.

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.

Suitable gloves type: Butyl caoutchouc (butyl rubber)
 Wear cotton undermitten if possible.
 Thickness of the glove material > 0,7 mm
 Permeation time (maximum wear duration): > 480 min

Skin protection

Use of protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:	Liquid
Color:	diverse
Odor:	Solvent

Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	188 °C
Flammability:	not determined
Lower explosion limits:	2,7 vol. %
Upper explosion limits:	15,6 vol. %
Flash point:	73 °C
Auto-ignition temperature:	174 °C
Decomposition temperature:	not determined
pH-Value:	not determined
Viscosity / kinematic:	< 10 mm ² /s
Water solubility:	partially miscible
Solubility in other solvents	not determined
Partition coefficient n-octanol/water:	not determined
Vapor pressure:	< 1 hPa
(at 20 °C)	
Density (at 20 °C):	0,96 - 0,98 g/cm ³
Relative vapour density:	not determined
Particle characteristics:	not applicable

Test method

ISO 2811

Other information

Information with regard to physical hazard classes

Explosive properties

Vapors may form explosive mixtures with air.
 Temperature Class: T4

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Oxidizing properties
The product is not: oxidising.

10. Stability and reactivity

Reactivity

Explosive.

Chemical stability

The product is stable under storage at normal ambient temperatures.

Possibility of hazardous reactions

No known hazardous reactions.

Conditions to avoid

Handle with care - avoid bumps, friction and impact. Explosive. Remove all sources of ignition. Keep away from: Heat. Ignition.

Incompatible materials

Protect against: Contact with air/oxygen.

Hazardous decomposition products

No known hazardous decomposition products.

11. Toxicological information

Information on toxicological effects

Acute toxicity

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

ATEmix calculated

ATE (oral) 15836 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Components				
	Exposure route	Dose	Species	Source	Method
112-36-7	Bis(2-ethoxyethyl)ether				
	oral	LD50 6500 mg/kg	Rat	Range-Finding Toxicity Data: List VI Vol	OECD Guideline 401
96-48-0	gamma-Butyrolactone				
	oral	LD50 1582 mg/kg	Rat	Study report (1960)	OECD Guideline 401
	inhalation (4 h) dust/mist	LC50 5,1 mg/l	Rat		

Irritation and corrosivity

Causes skin irritation
Causes serious eye damage

Sensitizing effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

Specific target organ toxicity (STOT) - single exposure

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

Specific target organ toxicity (STOT) - repeated exposure

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

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Aspiration hazard

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

Information on other hazards

Other information

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

12. Ecological information

Ecotoxicity

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

CAS No	Components					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
112-36-7	Bis(2-ethoxyethyl)ether					
	Acute fish toxicity	LC50 7 mg/l	2609,34	96 h	EPA website (2009)	other: REACH guidance , chapter R.6: QSA
	Acute algae toxicity	ErC50 mg/l	291,765	96 h	EPA website (2009)	other: REACH guidance , chapter R.6: QSA
	Acute crustacea toxicity	EC50 7 mg/l	1178,84	48 h	EPA website (2009)	Model for determining aquatic toxicity b
96-48-0	gamma-Butyrolactone					
	Acute fish toxicity	LC50 mg/l	> 100	96 h	Lepomis macrochirus	Study report (1986)
	Acute algae toxicity	ErC50 mg/l	> 1000	72 h	Desmodesmus subspicatus	Study report (1988)
	Acute crustacea toxicity	EC50 mg/l	> 500	48 h	Daphnia magna	Study report (1988)

Persistence and degradability

The product has not been tested.

CAS No	Components			
	Method	Value	d	Source
	Evaluation			
112-36-7	Bis(2-ethoxyethyl)ether			
	OECD Guideline 301F	0 %	28	
	Not readily biodegradable (according to OECD criteria)			
96-48-0	gamma-Butyrolactone			
	OECD Guideline 301C	77 %	14	
	Readily biodegradable (according to OECD criteria).			

Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Components	Log Pow
112-36-7	Bis(2-ethoxyethyl)ether	0,39
96-48-0	gamma-Butyrolactone	-0,566

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BCF

CAS No	Components	BCF	Species	Source
96-48-0	gamma-Butyrolactone	3,16		unpublished - Intern

Mobility in soil

The product has not been tested.

Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

The product has not been tested.

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Other adverse effects

No information available.

Further information

Avoid release to the environment.

13. Disposal considerations

Waste treatment methods

Disposal recommendations

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

List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled.

14. Transport information

Land transport (ADR/RID)

UN number or ID number: No dangerous good in sense of this transport regulation.
UN proper shipping name: No dangerous good in sense of this transport regulation.
Transport hazard class(es): No dangerous good in sense of this transport regulation.
Packing group: No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

UN number or ID number: No dangerous good in sense of this transport regulation.
UN proper shipping name: No dangerous good in sense of this transport regulation.
Transport hazard class(es): No dangerous good in sense of this transport regulation.
Packing group: No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

UN number or ID number: No dangerous good in sense of this transport regulation.
UN proper shipping name: No dangerous good in sense of this transport regulation.
Transport hazard class(es): No dangerous good in sense of this transport regulation.
Packing group: No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

UN number or ID number: No dangerous good in sense of this transport regulation.
UN proper shipping name: No dangerous good in sense of this transport regulation.
Transport hazard class(es): No dangerous good in sense of this transport regulation.
Packing group: No dangerous good in sense of this transport regulation.

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Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

Special precautions for user

No information available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

15. Regulatory information**Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3

2010/75/EU (VOC): 88,03 % (848,6 g/l)

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Employment restrictions: Observe employment restrictions for young people.

Water hazard class (D): 1 - slightly hazardous to water

Chemical Safety Assessment

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

16. Other information**Changes**

This data sheet contains changes from the previous version in section(s): 1,8,9.

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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
 - 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
 - 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: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).
- Acute Tox: Acute toxicity
 - Skin Irrit: Skin irritation
 - Eye Dam: Eye damage
 - STOT SE: Specific target organ toxicity single exposure

Classification for mixtures and used evaluation method according to GHS

Classification	Classification procedure
Skin Irrit. 2; H315	Calculation method
Eye Dam. 1; H318	Calculation method

Relevant H statements (full text)

- H302 Harmful if swallowed
- H315 Causes skin irritation
- H318 Causes serious eye damage
- H336 May cause drowsiness or dizziness

Other data

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