

Safety Data Sheet

according to UK REACH Regulation

ORALITE® Retarder

Revision date: 19/11/2024

Product code: 1001648

Page 1 of 10

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

1.1. Product identifier

ORALITE® Retarder

Further trade names

ORALITE® Retarder SV1, Retarder for Serigraphic Ink series ORALITE® 5010/5018

ORALITE® Verzögerer für die Siebdruckfarbe - Serie ORALITE® 5010/5018

ORALITE® VZ 5018

UFI:

AP0N-J8T2-V84J-K66E

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

Use of the substance/mixture

Process regulator. For use in industrial installations only.

Uses advised against

Do not use for private purposes (household).

1.3. 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:	EHSQ@orafol.de	
Contact person:	EHSQ Department	
Internet:	www.orafol.com	

1.4. Emergency telephone number:

National Poison Information Service: In case of a medical emergency following exposure to a chemical, the public should call NHS Direct in England or Wales 0845 46 47 or NHS 24 in Scotland 08454 24 24 24 (UK only).

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Eye Dam. 1; H318

Repr. 2; H361d

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Hazard components for labelling

Butyl glycolate

Signal word:

Danger

Pictograms:



Hazard statements

H318 Causes serious eye damage.

H361d Suspected of damaging the unborn child.

Precautionary statements

P201 Obtain special instructions before use.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing

Safety Data Sheet

according to UK REACH Regulation

ORALITE® Retarder

Revision date: 19/11/2024

Product code: 1001648

Page 2 of 10

Precautionary statements

- 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.
- P310 Immediately call a POISON CENTER/doctor.
- P405 Store locked up.

2.3. Other hazards

The mixture contains the following substances fulfilling the PBT-/vPvB criteria according to REACH Annex XIII: none

Endocrine disrupting properties - Toxicity:

The mixture does not contain substances $\geq 0.1\%$ of substances that have endocrine disrupting properties according to Regulation (EC) No. 1907/2006, Article 59(1) or Regulation (EU) 2017/2100 or Regulation (EU) 2018/605.

Endocrine disrupting properties - Ecotoxicity:

The mixture does not contain substances $\geq 0.1\%$ of substances that have endocrine disrupting properties according to Regulation (EC) No. 1907/2006, Article 59(1) or Regulation (EU) 2017/2100 or Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
7397-62-8	Butyl glycolate			50 - < 100 %
	230-991-7		01-2119514685-36	
	Repr. 2, Eye Dam. 1; H361d H318			

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

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
7397-62-8	230-991-7	Butyl glycolate	50 - < 100 %
	oral: LD50 = 4595 mg/kg		

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. If unconscious but breathing normally, 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

Wash with plenty of water. Immediately remove any contaminated clothing, shoes or stockings. Medical treatment necessary. Take off immediately all contaminated clothing and wash it before reuse. After contact with skin, wash immediately with plenty of water and soap. Washing and cleaning products Unsuitable material: Solvents/Thinner

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. Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion

Observe risk of aspiration if vomiting occurs. 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.

Safety Data Sheet

according to UK REACH Regulation

Revision date: 19/11/2024

ORALITE® Retarder

Product code: 1001648

Page 3 of 10

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

Co-ordinate fire-fighting measures to the fire surroundings. Carbon dioxide (CO₂), alcohol resistant foam, Extinguishing powder, Water spray jet.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Non-flammable. Vapours can form explosive mixtures with air. In case of fire may be liberated: Carbon monoxide, Carbon dioxide (CO₂). Burning produces heavy smoke.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

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

General advice

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

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.

6.3. Methods and material for containment and cleaning up

For cleaning up

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Clear contaminated areas thoroughly. Clean with detergents. Avoid solvent cleaners.

Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

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. Provide adequate ventilation. To follow: Occupational exposure limit values. Never use pressure to empty container. Read label before use.

Advice on protection against fire and explosion

Safety Data Sheet

according to UK REACH Regulation

ORALITE® Retarder

Revision date: 19/11/2024

Product code: 1001648

Page 4 of 10

Use explosion-proof machinery, apparatus, ventilation facilities, tools etc. The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration.

Fire class: B
Temperature Class: T2

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. 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 or drink.

Further information on handling

When using do not eat, drink or smoke. Never use pressure to empty container.

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 exhaust at critical locations.

Hints on joint storage

Do not store together with: Oxidising agent, Strong acid, Strong alkali.

Further information on storage conditions

Recommended storage temperature: 15 - 30 °C
Keep only in the original container in a cool, well-ventilated place. Avoid high temperatures or direct sunlight.

7.3. Specific end use(s)

Process regulator

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
7397-62-8	Butyl glycolate			
Worker DNEL, long-term		dermal	systemic	10 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	7,05 mg/m³
Consumer DNEL, long-term		oral	systemic	2 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	25 mg/kg bw/day
Consumer DNEL, long-term		dermal	local	0,28 ppm
Consumer DNEL, long-term		inhalation	systemic	1,74 mg/m³

PNEC values

CAS No	Substance	Value
7397-62-8	Butyl glycolate	
Freshwater		0,023 mg/l
Freshwater (intermittent releases)		0,231 mg/l
Marine water		0,002 mg/l
Freshwater sediment		0,094 mg/kg
Marine sediment		0,009 mg/kg
Micro-organisms in sewage treatment plants (STP)		3,71 mg/l
Soil		0,005 mg/kg

Additional advice on limit values

To date, no national critical limit values exist.

Safety Data Sheet

according to UK REACH Regulation

ORALITE® Retarder

Revision date: 19/11/2024

Product code: 1001648

Page 5 of 10

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 local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

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. EN ISO 374

Suitable gloves type: Butyl caoutchouc (butyl rubber)

Thickness of the glove material > 0,4 mm

Permeation time (maximum wear duration): > 480 min

Skin protection

Use of protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Filter type: A EN 140

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	colourless
Odour:	ester

Test method

Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	180 °C
Flammability:	not determined
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	82 °C
Auto-ignition temperature:	415 °C
Decomposition temperature:	not determined
pH-Value:	not determined
Viscosity / kinematic:	not determined
Water solubility:	The study does not need to be conducted because the substance is known to be insoluble in water.

ASTM D 6450 (CCCFP)

Solubility in other solvents
not determined

Partition coefficient n-octanol/water:

not determined

Vapour pressure (at 20 °C):

1,31 hPa

Safety Data Sheet

according to UK REACH Regulation

ORALITE® Retarder

Revision date: 19/11/2024

Product code: 1001648

Page 6 of 10

Vapour pressure (at 50 °C):	1,31 hPa	
Density (at 20 °C):	1,02 g/cm ³	ISO 2811
Relative vapour density:	not determined	
Particle characteristics:	not applicable	

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

The product is not: Explosive.

Oxidizing properties

The product is not: oxidising.

Other safety characteristics

Evaporation rate: not determined

Solid content: 0 %

Flow time (at 20 °C): < 12 s 4 DIN 53211

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

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. Danger of bursting container.

10.4. Conditions to avoid

No hazardous reaction when handled and stored according to provisions.

10.5. Incompatible materials

Do not store together with: Oxidising agent, Strong acid, Strong alkali.

10.6. Hazardous decomposition products

In case of fire may be liberated: Carbon monoxide, Carbon dioxide (CO₂). Burning produces heavy smoke.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Acute toxicity

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

ATEmix calculated

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7397-62-8	Butyl glycolate				
	oral	LD50 4595 mg/kg	Rat	Other company data (1968)	OECD Guideline 401

Irritation and corrosivity

Serious eye damage/eye irritation: Causes serious eye damage.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

Safety Data Sheet

according to UK REACH Regulation

ORALITE® Retarder

Revision date: 19/11/2024

Product code: 1001648

Page 7 of 10

Suspected of damaging the unborn child. (Butyl glycolate)
 Germ cell mutagenicity: Based on available data, the classification criteria are not met.
 Carcinogenicity: Based on available data, the classification criteria are not met.

STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

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

Practical experience

The inhalation of dust/mist or aerosols causes irritation of the respiratory tract. Ingestion causes nausea, weakness and central nervous system effects. Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation). After eye contact: Causes serious eye damage.

11.2. Information on other hazards

Other information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP]. Special hazards arising from the substance or mixture!

SECTION 12: Ecological information

12.1. Toxicity

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

The product is not: Ecotoxic.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h][d]	Species	Source	Method
7397-62-8	Butyl glycolate					
	Acute fish toxicity	LC50 23,1 mg/l	96 h	Danio rerio	REACH Registration Dossier	OECD Guideline 203
	Acute crustacea toxicity	EC50 > 100 mg/l	48 h	Daphnia magna	REACH Registration Dossier	OECD Guideline 202

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
7397-62-8	Butyl glycolate	0,38

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

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

The product has not been tested.

12.6. 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.

12.7. Other adverse effects

No information available.

Further information

Safety Data Sheet

according to UK REACH Regulation

Revision date: 19/11/2024

ORALITE® Retarder

Product code: 1001648

Page 8 of 10

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation. The waste code has to be identified in agreement with the disposal company or the competent authority.

List of Wastes Code - residues/unused products

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

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

Hazardous waste according to Directive 2008/98/EC (waste framework directive). Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.2. UN proper shipping name: No dangerous good in sense of these transport regulations.

Inland waterways transport (ADN)

14.2. UN proper shipping name: No dangerous good in sense of these transport regulations.

Marine transport (IMDG)

14.2. UN proper shipping name: No dangerous good in sense of these transport regulations.

Air transport (ICAO-TI/IATA-DGR)

14.2. UN proper shipping name: No dangerous good in sense of these transport regulations.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No information available.

14.7. Maritime transport in bulk according to IMO instruments

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 3

Directive 2010/75/EU on industrial emissions: 99,46 % (1014,492 g/l)

Directive 2004/42/EC on VOC in paints and varnishes: 99,46 % (1014,492 g/l)

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

Additional information

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate

Safety Data Sheet

according to UK REACH Regulation

ORALITE® Retarder

Revision date: 19/11/2024

Product code: 1001648

Page 9 of 10

List according to Article 59 of REACH: none

Contains the following substances that deplete the ozone layer: none

National regulatory information

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D):

1 - slightly hazardous to water

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): 2,4,5,6,7,8,9,10,11,12,13,15,16.

Abbreviations and acronyms

Eye Dam: Eye damage

Repr: Reproductive toxicity

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

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

EC/EEC: European Community/European Economic Community

EU: European Union

DNEL: Derived No Effect Level

DMEL: Derived Minimal Effect Level

PNEC: Predicted No Effect Concentration

ATE: Acute toxicity estimate

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

M-factor: Multiplying factor

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)

EmS: Emergency Schedules

MFAG: Medical First Aid Guide

IATA: International Air Transport Association

DGR: Dangerous Goods Regulations

ICAO: International Civil Aviation Organization

TI: Technical Instructions

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

Safety Data Sheet

according to UK REACH Regulation

ORALITE® Retarder

Revision date: 19/11/2024

Product code: 1001648

Page 10 of 10

IBC: Intermediate Bulk Container

VOC: volatile organic compound

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).

Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Eye Dam. 1; H318	Calculation method
Repr. 2; H361d	Calculation method

Relevant H and EUH statements (number and full text)

H318 Causes serious eye damage.

H361d Suspected of damaging the unborn child.

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