

according to Regulation (EC) No 1907/2006

ORALITE® Printing Modifier

Revision date: 18.05.2020

Product code: 345900023...24

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

1.1. Product identifier

ORALITE® Printing Modifier

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

Use of the substance/mixture

Process regulator

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:	msds@orafol.de	
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

Regulation (EC) No. 1272/2008

Hazard categories:

Flammable liquid: Flam. Liq. 3

Aspiration hazard: Asp. Tox. 1

Specific target organ toxicity - single exposure: STOT SE 3

Specific target organ toxicity - single exposure: STOT SE 3

Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

Flammable liquid and vapour.

May be fatal if swallowed and enters airways.

May cause respiratory irritation.

May cause drowsiness or dizziness.

Toxic to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified

Signal word: Danger

Pictograms:


Hazard statements

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H335	May cause respiratory irritation.

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H336 May cause drowsiness or dizziness.
 H411 Toxic 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.
 P243 Take action to prevent static discharges.
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
 P331 Do NOT induce vomiting.
 P391 Collect spillage.

Special labelling of certain mixtures

EUH066 Repeated exposure may cause skin dryness or cracking.
 Contains 5 - < 10 % of components with unknown hazards to the aquatic environment.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Polydimethylsiloxane solution

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
64742-95-6	Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified			>= 25% < 50%
	265-199-0		01-2119486773-24	
	Flam. Liq. 3, STOT SE 3, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H226 H335 H336 H304 H411			
70131-67-8	Poly(dimethylsiloxane), hydroxy terminated			>= 1% < 10%
	615-070-3			
	Skin Irrit. 2, Eye Irrit. 2; H315 H319			
556-67-2	octamethylcyclotetrasiloxane			>= 0.1% < 1%
	209-136-7		01-2119529238-36	
	Flam. Liq. 3, Repr. 2, Aquatic Chronic 4; H226 H361f H413			

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. If unconscious place in recovery position and seek medical advice. Never give anything by mouth to an unconscious person or a person with cramps.

After inhalation

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

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After contact with skin

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

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

Observe risk of aspiration if vomiting occurs. Do NOT induce vomiting. Rinse mouth immediately and drink plenty of water. Medical treatment necessary.

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

Carbon dioxide (CO₂), Foam, Extinguishing powder, alcohol resistant foam, Water spray jet,

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Flammable. Vapours can form explosive mixtures with air. Release of: Carbon dioxide (CO₂), Carbon monoxide, Silicon dioxide (SiO₂).

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

Remove all sources of ignition. 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 uncontrolled discharge of product into the environment. Danger of explosion

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.

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.

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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.
 Fire class B

Further information on handling

Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Ground and bond container and receiving equipment. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaust 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.

Hints on joint storage

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

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
64742-95-6	Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified			
Worker DNEL, acute		inhalation	systemic	1286,4 mg/m ³
Worker DNEL, long-term		inhalation	local	837,5 mg/m ³
Worker DNEL, acute		inhalation	local	1066,67 mg/m ³
Consumer DNEL, acute		inhalation	systemic	1152 mg/m ³
Consumer DNEL, long-term		inhalation	local	178,57 mg/m ³
Consumer DNEL, acute		inhalation	local	640 mg/m ³
Consumer DNEL, long-term		oral	systemic	11 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	11 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	32 mg/m ³
Worker DNEL, long-term		inhalation	systemic	150 mg/m ³
556-67-2	octamethylcyclotetrasiloxane			
Worker DNEL, long-term		inhalation	systemic	73 mg/m ³
Worker DNEL, acute		inhalation	systemic	73 mg/m ³
Worker DNEL, long-term		inhalation	local	73 mg/m ³
Worker DNEL, acute		inhalation	local	73 mg/m ³
Consumer DNEL, long-term		inhalation	systemic	13 mg/m ³
Consumer DNEL, acute		inhalation	systemic	13 mg/m ³
Consumer DNEL, long-term		inhalation	local	13 mg/m ³
Consumer DNEL, acute		inhalation	local	13 mg/m ³
Consumer DNEL, long-term		oral	systemic	3,7 mg/kg bw/day
Consumer DNEL, acute		oral	systemic	3,7 mg/kg bw/day

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PNEC values

CAS No	Substance	Value
Environmental compartment		
556-67-2	octamethylcyclotetrasiloxane	
Freshwater		0,0015 mg/l
Marine water		0,00015 mg/l
Freshwater sediment		3 mg/kg
Marine sediment		0,3 mg/kg
Secondary poisoning		41 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Soil		0,54 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.

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 or drink.

Eye/face protection

Wear eye protection/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.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid
 Colour: colourless

Test method

pH-Value: not determined

Changes in the physical state

Melting point: not determined

Initial boiling point and boiling range: 160 °C

Flash point: 47 °C

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Flammability

Solid: not applicable
 Gas: not applicable

Explosive properties

Vapours can form explosive mixtures with air.

Lower explosion limits: 0,7 vol. %
 Upper explosion limits: 8 vol. %
 Ignition temperature: 450 °C

Auto-ignition temperature

Solid: not applicable
 Gas: not applicable

Decomposition temperature: not determined

Oxidizing properties

Not oxidising.

Vapour pressure: 3 hPa
 (at 20 °C)

Density (at 20 °C): 0,95 g/cm³

Water solubility: The study does not need to be conducted because the substance is known to be insoluble in water.

Solubility in other solvents

not determined

Partition coefficient: not determined

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

Vapour density: not determined

Evaporation rate: not determined

9.2. Other information

Solid content: not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

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

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.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

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11.1. Information on toxicological effects
Acute toxicity

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
64742-95-6	Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified				
	oral	LD50 > 5000 mg/kg	Rat	Study report (1986)	OECD Guideline 401
	dermal	LD50 > 2000 mg/kg	Rabbit	Study report (1989)	OECD Guideline 402
	inhalation (4 h) vapour	LC50 > 4,96 mg/l	Rat	Study report (1992)	OECD Guideline 403
70131-67-8	Poly(dimethylsiloxane), hydroxy terminated				
	oral	LD50 62080 mg/kg	Rat		
	dermal	LD50 15520 mg/kg	Rabbit		
556-67-2	octamethylcyclotetrasiloxane				
	oral	LD50 > 4800 mg/kg	Rat	Study report (1979)	OECD Guideline 401
	dermal	Data lacking			
	inhalation (4 h) vapour	LC50 12,17 mg/l	Rattus norvegicus f. dom.		

Irritation and corrosivity

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

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

STOT-single exposure

May cause respiratory irritation. (Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified)

May cause drowsiness or dizziness. (Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified)

STOT-repeated exposure

Repeated exposure may cause skin dryness or cracking.

Aspiration hazard

May be fatal if swallowed and enters airways.

Additional information on tests

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

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
64742-95-6	Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified					
	Acute fish toxicity	LC50	9,2 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50	3,1 mg/l	72 h	Pseudokirchneriella subcapitata	Study report (1995) OECD Guideline 201
	Acute crustacea toxicity	EC50	4,5 mg/l	48 h	Daphnia magna	Study report (1995) OECD Guideline 202
	Fish toxicity	NOEC	2,6 mg/l	21 d	Daphnia magna	Study report (1999) other: OECD Guideline 211
	Crustacea toxicity	NOEC	2,6 mg/l	21 d	Daphnia magna	Study report (1999) OECD Guideline 211
70131-67-8	Poly(dimethylsiloxane), hydroxy terminated					
	Aquatic toxicity	Data lacking				
556-67-2	octamethylcyclotetrasiloxane					
	Acute fish toxicity	LC50	> 0,022 mg/l	96 h	Oncorhynchus mykiss	Env. Toxicol. & Chemistry 14, 1639-1647 EPA OTS 797.1400
	Acute algae toxicity	ErC50	> 0,022 mg/l	96 h	Pseudokirchneriella subcapitata	Study report (1990) EPA OTS 797.1050
	Acute crustacea toxicity	EC50	> 0,015 mg/l	48 h	Daphnia magna	Env. Toxicol. & Chemistry 14, 1639-1647 EPA OTS 797.1300
	Fish toxicity	NOEC	>= 0,0044 mg/l	93 d	Oncorhynchus mykiss	Env. Toxicol. & Chemistry 14, 1639-1647 other: 40 CFR 797.1600
	Crustacea toxicity	NOEC	>= 0,015 mg/l	21 d	Daphnia magna	Env. Toxicol. & Chemistry 14, 1639-1647 EPA OTS 797.1330
	Acute bacteria toxicity	(10000 mg/l)		3 h	Pseudomonas putida	

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
556-67-2	octamethylcyclotetrasiloxane	6,488

BCF

CAS No	Chemical name	BCF	Species	Source
556-67-2	octamethylcyclotetrasiloxane	12400	Pimephales promelas	Study report (1991)

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.

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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.

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 - used product

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

This material and its container must be disposed of as hazardous waste. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:	UN 1263
14.2. UN proper shipping name:	Paint related material
14.3. Transport hazard class(es):	3
14.4. Packing group:	III
Hazard label:	3



Classification code:	F1
Special Provisions:	163 367 650
Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	3
Hazard No:	30
Tunnel restriction code:	D/E

Inland waterways transport (ADN)

14.1. UN number:	UN 1263
14.2. UN proper shipping name:	Paint related material
14.3. Transport hazard class(es):	3
14.4. Packing group:	III
Hazard label:	3



Classification code:	F1
Special Provisions:	163 367 650

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Limited quantity: 5 L
 Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number: UN 1263
14.2. UN proper shipping name: Paint related material
14.3. Transport hazard class(es): 3
14.4. Packing group: III
 Hazard label: 3



Special Provisions: 163, 223, 367, 955
 Limited quantity: 5 L
 Excepted quantity: E1
 EmS: F-E, S-E

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1263
14.2. UN proper shipping name: Paint related material
14.3. Transport hazard class(es): 3
14.4. Packing group: III
 Hazard label: 3



Special Provisions: A3 A72 A192
 Limited quantity Passenger: 10 L
 Passenger LQ: Y344
 Excepted quantity: E1
 IATA-packing instructions - Passenger: 355
 IATA-max. quantity - Passenger: 60 L
 IATA-packing instructions - Cargo: 366
 IATA-max. quantity - Cargo: 220 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes



Danger releasing substance: Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified, octamethylcyclotetrasiloxane

14.6. Special precautions for user

Warning: Combustible liquid. none

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

No information available.

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

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Authorisations (REACH, annex XIV):

Substances of very high concern, SVHC (REACH, article 59):
octamethylcyclotetrasiloxane

Restrictions on use (REACH, annex XVII):

Entry 28: Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified
Entry 70: octamethylcyclotetrasiloxane

2010/75/EU (VOC): 50 % (475 g/l)

2004/42/EC (VOC): 50 % (475 g/l)

Information according to 2012/18/EU (SEVESO III): E2 Hazardous to the Aquatic Environment

Additional information: P5c

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): 2 - obviously hazardous to water

Additional information

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: octamethylcyclotetrasiloxane

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH: none

15.2. Chemical safety assessment

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

SECTION 16: Other information

Abbreviations and acronyms

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%

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

Classification	Classification procedure
Flam. Liq. 3; H226	On basis of test data
Asp. Tox. 1; H304	Calculation method
STOT SE 3; H335	Calculation method
STOT SE 3; H336	Calculation method
Aquatic Chronic 2; H411	Calculation method

Relevant H and EUH statements (number and full text)

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.

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H361f	Suspected of damaging fertility.
H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.
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 data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)