

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ORALITE® Printing Modifier

Revision date: 19.05.2021

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

Further trade names

ORALITE® Druckverbesserer ES

ORALITE® Printing Modifier ES

345900023 (100 ml)

345900024 (1 l)

UFI: AYX6-JP3T-663E-AW6E

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 sheetCompany 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**

Hydrocarbons, C9, aromatics

Signal word: Danger

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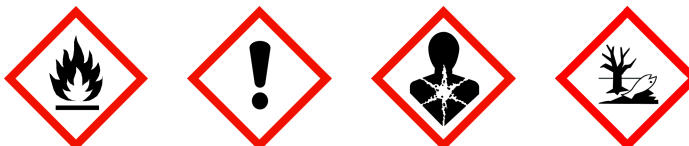
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Pictograms:



Hazard statements

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H335	May cause respiratory irritation.
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/hearing protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P331	Do NOT induce vomiting.
P403+P235	Store in a well-ventilated place. Keep cool.

Special labelling of certain mixtures

EUH066	Repeated exposure may cause skin dryness or cracking.
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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	Hydrocarbons, C9, aromatics			25 - < 50 %
	918-668-5		01-2119455851-35	
	Flam. Liq. 3, STOT SE 3, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H226 H335 H336 H304 H411 EUH066			

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		
64742-95-6	918-668-5	Hydrocarbons, C9, aromatics	25 - < 50 %
	inhalation: LC50 = 6193 mg/l (vapours); dermal: LD50 = > 3160 mg/kg; oral: LD50 = 3492 mg/kg		

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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. 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.

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

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, alcohol resistant foam, Water spray jet, Extinguishing powder.

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). 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 measures**

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 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

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For cleaning up

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. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc.

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

Temperature Class T2

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 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. Protect from sunlight. Store in a well-ventilated place.

Hints on joint storage

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

Further information on storage conditions

Recommended storage temperature 15 - 30 °C

7.3. Specific end use(s)

Process regulator

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
95-63-6	Trimethylbenzenes: 1,2,4-Trimethylbenzene	25	125		TWA (8 h)	WEL
108-67-8	Trimethylbenzenes: Mesitylene	25	125		TWA (8 h)	WEL

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DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
64742-95-6	Hydrocarbons, C9, aromatics			
Worker DNEL, long-term		inhalation	systemic	150 mg/m ³
Worker DNEL, long-term		dermal	systemic	25 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	32 mg/m ³
Consumer DNEL, long-term		dermal	systemic	11 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	11 mg/kg bw/day

Additional advice on limit values

Contains: Hydrocarbons, C9, aromatics. Occupational exposure limit values: The receiver of our product is singularly responsible for adhering to existing laws and regulations.

8.2. Exposure controls



Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means. 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/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.

Suitable gloves type: NBR (Nitrile rubber)

Breakthrough times and swelling properties of the material must be taken into consideration. The required protective gloves have to be specified by the glove material and the penetration time of the glove material depending on strength and duration of dermal exposition.

Skin protection

Wear suitable protective clothing. Immediately remove any contaminated clothing, shoes or stockings.

Respiratory protection

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:

Liquid

Colour:

colourless

Test method

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pH-Value: not determined

Changes in the physical state

Melting point: not determined

Boiling point or initial boiling point and boiling range: 160 °C

Flash point: 47 °C ASTM D 6450 (CCCFP)

Flammability

Solid/liquid: 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. %

Auto-ignition temperature: ca. 450 °C

Self-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 n-octanol/water: not determined

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

Relative 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. Avoid high temperatures or direct sunlight.

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10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

In case of fire may be liberated: Carbon dioxide (CO₂), Carbon monoxide, Silicon dioxide (SiO₂). Burning produces heavy smoke.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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	Hydrocarbons, C9, aromatics				
	oral	LD50 3492 mg/kg	Rat		
	dermal	LD50 > 3160 mg/kg	Rabbit	Study report (1984)	OECD Guideline 402
	inhalation (4 h) vapour	LC50 6193 mg/l	Rat		

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. (Hydrocarbons, C9, aromatics)

May cause drowsiness or dizziness. (Hydrocarbons, C9, aromatics)

STOT-repeated exposure

Repeated exposure may cause skin dryness or cracking.

Aspiration hazard

May be fatal if swallowed and enters airways.

Harmful: may cause lung damage if swallowed.

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!

Practical experience

exceeding exposure limit values: health hazards.

Adverse human health effects and symptoms: Irritating to respiratory system. Liver and kidney damage,

Headache, Dizziness. Vapours may cause drowsiness and dizziness. The product is skin resorptive.

Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation). After eye contact: Irritation or minor reversible injury possible.

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	Hydrocarbons, C9, aromatics					
	Acute fish toxicity	LL50	9,2 mg/l	96 h	Oncorhynchus mykiss	Study report (1994) OECD Guideline 203
	Acute algae toxicity	ErC50	7,9 mg/l	72 h	Pseudokirchneriella subcapitata	Study report (2006) OECD Guideline 201
	Acute crustacea toxicity	EL50	3,2 mg/l	48 h	Daphnia magna	Study report (1994) OECD Guideline 202
	Fish toxicity	NOEC mg/l	1,228	28 d	Oncorhynchus mykiss	CONCAWE, Brussels, Belgium (2010) The aquatic toxicity was estimated by a
	Algae toxicity	NOEC mg/l	0,07	3 d	Pseudokirchneriella subcapitata	ECHA OECD Guideline 201
	Crustacea toxicity	NOEC mg/l	2,144	21 d	Daphnia magna	CONCAWE, Brussels, Belgium (2010) The aquatic toxicity was estimated by a

12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
64742-95-6	Hydrocarbons, C9, aromatics			
	Formation of: Carbon dioxide (CO ₂)	78 %	28	

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
64742-95-6	Hydrocarbons, C9, aromatics	>= 2,92

BCF

CAS No	Chemical name	BCF	Species	Source
64742-95-6	Hydrocarbons, C9, aromatics	>= 39,8		REACH Registration D

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.

12.7. 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.

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. The waste code has to be identified in agreement with the disposal company or the competent authority.

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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

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

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
Limited quantity: 5 L
Excepted quantity: E1

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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: Hydrocarbons, C9, aromatics

14.6. Special precautions for user

Warning: flammable liquids. Keep away from heat.

14.7. Maritime transport in bulk according to IMO instruments

No information available.

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

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

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

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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 juveniles 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 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

Changes

This data sheet contains changes from the previous version in section(s): 1,2,3,4,5,6,7,8,9,10,11,13,14,15.

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.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H411 Toxic 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 data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)