

# Material Safety Data Sheet

Revision date: 13.11.2018

according to 29 CFR 1910.1200(g)

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Product code: PRIMER1L

## 1. Identification

### Product identifier

ORABOND® UHBPrimerA

### Recommended use of the chemical and restrictions on use

#### Use of the substance/mixture

Adhesion promotor

### 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

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

## 2. Hazard(s) identification

### Classification of the chemical

#### **29 CFR Part 1910.1200**

Flammable liquids: Flam. Liq. 3  
Aspiration hazard: Asp. Tox. 1  
Skin corrosion/irritation: Skin Irrit. 2  
Serious eye damage/eye irritation: Eye Irrit. 2A  
Germ cell mutagenicity: Muta. 1B  
Carcinogenicity: Carc. 2  
Reproductive toxicity: Repr. 2  
Reproductive toxicity: Lact.  
Specific target organ toxicity single exposure: STOT SE 1  
Specific target organ toxicity single exposure: STOT SE 3 (respiratory tract irritation)  
Specific target organ toxicity single exposure: STOT SE 3 (narcotic effects)  
Specific target organ toxicity repeated or prolonged exposure: STOT RE 1  
Specific target organ toxicity repeated or prolonged exposure: STOT RE 2  
Hazardous to the aquatic environment: Aquatic Chronic 2  
Hazardous to the aquatic environment: Aquatic Acute 2

### Label elements

#### **29 CFR Part 1910.1200**

**Signal word:** Danger

**Pictograms:**



### **Hazard statements**

Flammable liquid and vapor  
Causes skin irritation  
Causes serious eye irritation  
May cause genetic defects  
Suspected of causing cancer  
Suspected of damaging fertility; suspected of damaging the unborn child  
May cause harm to breast-fed children

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Causes damage to organs (kidneys, central nervous system, liver, Respiratory tract)  
May cause respiratory irritation  
May cause drowsiness or dizziness  
Causes damage to organs (central nervous system, Respiratory tract) through prolonged or repeated exposure  
May cause damage to organs (ears, liver, kidneys) through prolonged or repeated exposure  
May be fatal if swallowed and enters airways  
Toxic to aquatic life  
Toxic to aquatic life with long lasting effects

## **Precautionary statements**

If medical advice is needed, have product container or label at hand.  
Keep out of reach of children.  
Read label before use.  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
Keep container tightly closed.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ventilating/lighting equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Do not breathe dust/fume/gas/mist/vapors/spray.  
Wash hands thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Contaminated work clothing must not be allowed out of the workplace.  
Wear protective gloves/protective clothing/eye protection/face protection.  
If on skin: Wash with plenty of water.  
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
Call a poison center/doctor if you feel unwell.  
Specific treatment (see ... on this label).  
If skin irritation occurs:  
If skin irritation or rash occurs: Get medical advice/attention.  
Take off contaminated clothing and wash it before reuse.  
If inhaled: Remove person to fresh air and keep comfortable for breathing.  
Call a poison center/doctor if you feel unwell.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continue rinsing.  
If eye irritation persists: Get medical advice/attention.  
Get medical advice/attention if you feel unwell.  
In case of fire: Use ... to extinguish.  
Keep container tightly closed.  
Store in a well-ventilated place. Keep cool.  
Store locked up.  
Dispose of contents/container to an appropriate recycling or disposal facility.

## **Hazards not otherwise classified**

This product contains component(s) which have the following warnings; however based on the GHS classification criteria of your country or locale, the product mixture may be outside the respective category(s).

Acute: Vapor harmful; may affect the brain or nervous system causing dizziness, headache or nausea.  
Possible irritation of the respiratory system can occur causing a variety of symptoms such as dryness of the throat, tightness of the chest, and shortness of breath. May cause central nervous system depression characterized by the following progressive steps: headache, dizziness, staggering gait, confusion, unconsciousness or coma. This product contains a residual amount of a chemical substance that may cause an allergic skin and/or respiratory reaction. Harmful if swallowed. Ingestion is not an expected route of entry in industrial or commercial uses.

Chronic: May affect the gastrointestinal system. May affect the blood and blood-forming organs. Prolonged or repeated contact may result in dermatitis. Ethylbenzene has been classified by IARC as a possible human

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carcinogen (Group 2B) and reported by NTP to show clear evidence for carcinogenicity in animals.

### 3. Composition/information on ingredients

#### Mixtures

#### Hazardous components

CAS No	Components	Quantity
1330-20-7	xylene	75 - 80 %
100-41-4	ethylbenzene	15 - 20 %
68082-29-1	Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	< 1 %

### 4. First-aid measures

#### Description of first aid measures

##### After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Restore and support continued breathing. If breathing is difficult, give oxygen. Get immediate medical attention.

##### After contact with skin

Flush contaminated skin with large amounts of water while removing contaminated clothing. Wash affected skin areas with soap and water. Get medical attention if symptoms occur.

##### 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

If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label. Rinse mouth immediately and drink plenty of water. Never give anything by mouth if victim is rapidly losing consciousness, unconscious or convulsing.

#### 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

##### Suitable extinguishing media

Carbon dioxide (CO<sub>2</sub>), Foam, Extinguishing powder.

##### Unsuitable extinguishing media

Water.

#### Specific hazards arising from the chemical

Flammable. Vapors may form explosive mixtures with air.

#### Special protective equipment and precautions for fire-fighters

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

#### Additional information

Use water spray/stream 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.

### 6. Accidental release measures

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## Personal precautions, protective equipment and emergency procedures

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

## Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Danger of explosion

## 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.

## 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/vapour/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.

### 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.

#### Advice on storage compatibility

Do not store together with: Strong oxidizers, acids, bases. Pyrophoric or self-heating substances.

## 8. Exposure controls/personal protection

### Control parameters

#### Exposure limits

CAS No.	Substance	ppm	mg/m3	f/cc	Category	Origin
100-41-4	Ethyl benzene	100	435		TWA (8 h)	PEL
		100	435		TWA (8 h)	REL
		125	545		STEL (15 min)	REL
1330-20-7	Xylenes (o-,m-,p-isomers)	100	435		TWA (8 h)	PEL

### Exposure controls



#### Appropriate engineering controls

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

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## 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

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.

## Skin protection

Wear suitable protective clothing.

## Respiratory protection

In case of inadequate ventilation wear respiratory protection. Use a NIOSH approved chemical/mechanical filter respirator designed to remove a combination of particulates and organic vapor if occupational limits are exceeded. For emergency situations, confined space use, or other conditions where exposure limits may be greatly exceeded, use an approved air-supplied respirator. Observe OSHA regulations (29CFR 1910.134) for respirator use.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Physical state:	Liquid
Color:	colorless
Odor:	Solvent

### Test method

pH-Value:	not determined
<b>Changes in the physical state</b>	
Melting point/freezing point:	not determined
Initial boiling point and boiling range:	136,16 °C
Flash point:	81 °F , 27 °C Setaflash Closed Cup

### Flammability

Solid:	not applicable
Gas:	not applicable
Lower explosion limits:	0,9 vol. %
Upper explosion limits:	7 vol. %
Ignition temperature:	432 °C

### Auto-ignition temperature

Solid:	not applicable
Gas:	not applicable
Decomposition temperature:	not determined

### Oxidizing properties

Not oxidising.

Vapor pressure: (at 20 °C)	ca. 13,4 hPa
Density:	ca. 0,87 g/cm <sup>3</sup>

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<b>Water solubility:</b>	The study does not need to be conducted because the substance is known to be insoluble in water.
<b>Solubility in other solvents</b> not determined	
Partition coefficient:	not determined
Viscosity / dynamic: (at 25 °C)	10 mPas
Viscosity / kinematic: (at 25 °C)	12 mm <sup>2</sup> /s
Vapor density:	not determined
Evaporation rate:	not determined
Solvent content:	ca. 95-99%

VAPOR DENSITY: Heavier than Air

## Other information

## 10. Stability and reactivity

### Reactivity

Flammable.

### Chemical stability

The product is stable under storage at normal ambient temperatures.

### Possibility of hazardous reactions

Heating causes rise in pressure with risk of bursting.

### Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapors may form explosive mixtures with air.

### Incompatible materials

Strong acid, Strong alkali, Oxidising agent

### Hazardous decomposition products

Carbon dioxide, carbon monoxide, chlorine, hydrogen chloride, Phosgene

## 11. Toxicological information

### Information on toxicological effects

#### ATEmix calculated

ATE (dermal) 1382,8 mg/kg; ATE (inhalative vapour) 11,98 mg/l; ATE (inhalative aerosol) 1,515 mg/l

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## Acute toxicity

CAS No	Components					
	Exposure route	Dose		Species	Source	Method
1330-20-7	xylene					
	oral	LD50 mg/kg	3523	Rat	Study report (1986)	EU Method B.1
	dermal	ATE mg/kg	1100			
	inhalative vapour	ATE	11 mg/l			
	inhalative aerosol	ATE	1,5 mg/l			
100-41-4	ethylbenzene					
	oral	LD50 mg/kg	ca. 3500	Rat	AMA Arch. Ind. Health. 14:387-398. (1956)	No guideline available
	dermal	LD50 mg/kg	15400	Rabbit	GESTIS	
	inhalative (4 h) vapour	LC50	17,2 mg/l	Rat		
	inhalative aerosol	ATE	1,5 mg/l			
68082-29-1	Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine					
	oral	LD50 mg/kg	> 2000	Rat	Study report (2012)	OECD Guideline 423
	dermal	LD50 mg/kg	> 2000	Rat	Study report (2013)	OECD Guideline 402

Carcinogenicity (OSHA): No ingredient of this mixture is listed.

Carcinogenicity (IARC): Xylenes (CAS 1330-20-7) is listed in group 3. Ethylbenzene (CAS 100-41-4) is listed in group 2B.

Carcinogenicity (NTP): No ingredient of this mixture is listed.

### Additional information on tests

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

## 12. Ecological information

### Persistence and degradability

The product has not been tested.

### Bioaccumulative potential

The product has not been tested.

### Mobility in soil

The product has not been tested.

### 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.

## 13. Disposal considerations

### Waste treatment methods

#### Advice on disposal

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Disposal should be done in accordance with Federal (40CFR Part 261), state and local environmental control regulations. If waste is determined to be hazardous, use licensed hazardous waste transporter and disposal facility.

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## 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.

## 14. Transport information

### Marine transport (IMDG)

**UN number:** UN 1133  
**UN proper shipping name:** UN 1133, Adhesives, mixture  
**Transport hazard class(es):** Class 3, Subrisk-  
**Packing group:** III  
**Limited quantity:** 5 L  
**EmS:** F-E, S-D

### Other applicable information (marine transport)

Special provisions: 223, 955  
Excepted quantities: E1  
Contaminated packaging - Instructions: P001, LP01  
Contaminated packaging - Provisions: PP1  
Stowage and handling: Category A.  
Properties and observations: Adhesives are solutions of gums, resins, etc., usually volatile due to the solvents. Miscibility with water depends upon their composition.  
Segregation group: none

### Air transport (ICAO-TI/IATA-DGR)

**UN number:** UN 1133  
**UN proper shipping name:** UN 1133, Adhesives, mixture  
**Transport hazard class(es):** Class 3  
**Packing group:** III

### Other applicable information (air transport)

Hazard label: Flamm. liquid  
Excepted Quantity Code: E1  
Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y344 - Max. Net Qty/Pkg. 10 L  
Passenger and Cargo Aircraft: Pack.Instr. 355 - Max. Net Qty/Pkg. 60 L  
Cargo Aircraft only: Pack.Instr. 366 - Max. Net Qty/Pkg. 220 L  
Special provisions: A3  
Emergency Response Guide-Code (ERG): 3L

### 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

No data available

## 15. Regulatory information

### U.S. Regulations

#### National regulatory information

SARA Section 304 CERCLA:  
Xylene (mixed isomers) (1330-20-7): Reportable quantity = 100 (45.4) lbs. (kg)  
Ethylbenzene (100-41-4): Reportable quantity = 1,000 (454) lbs. (kg)  
SARA Section 311/312 Hazards:  
Xylene (mixed isomers) (1330-20-7): Fire hazard, Immediate (acute) health hazard, Delayed (chronic)

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health hazard

Ethylbenzene (100-41-4): Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and

triethylenetetramine (68082-29-1): Immediate (acute) health hazard

SARA Section 313 Toxic release inventory:

Xylene (mixed isomers) (1330-20-7): De minimis limit = 1.0 %, Reportable threshold = Standard

Ethylbenzene (100-41-4): De minimis limit = 0.1 %, Reportable threshold = Standard

Clean Air Act Section 112(b):

Xylene (mixed isomers) (1330-20-7), Ethylbenzene (100-41-4)

## State Regulations

### Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)

WARNING: This product contains the following chemical(s) known to the State of California to cause cancer, birth defects or other reproductive harm: Ethylbenzene (cancer).

## 16. Other information

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### 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%

### Other data

The information is based on present level of our knowledge. It does not, however, give assurances 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.)*