

according to UK REACH Regulation

ORABOND® UHBPrimerA

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

1.1. Product identifier

ORABOND® UHBPrimerA

UFI: 0QD2-E0G9-1R44-S52S

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

Use of the substance/mixture

Adhesion promotor. 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: msds@orafol.de
Contact person: EHSQ Department
Internet: www.orafol.com

1.4. Emergency telephone National Poison Information Service: In case of a medical emergency following

number: 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

Flam. Liq. 3; H226

Acute Tox. 4: H312

Acute Tox. 4; H332

Asp. Tox. 1; H304

Skin Irrit. 2; H315

Eye Irrit. 2; H319

Skin Sens. 1; H317

STOT SE 3; H335

STOT RE 2; H373

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Hazard components for labelling

reaction mass of ethylbenzene and xylene

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

Signal word: Danger

Pictograms:







Hazard statements

H226 Flammable liquid and vapour.



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H304 May be fatal if swallowed and enters airways. H312+H332 Harmful in contact with skin or if inhaled.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P102 Keep out of reach of children.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

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

protection.

P331 Do NOT induce vomiting.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

water or shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P501 Dispose of contents/container to an appropriate recycling or disposal facility.

2.3. Other hazards

Special danger of slipping by leaking/spilling product.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

| CAS No | Chemical name | | | | |
|------------|---|--------------|------------------|--------------|--|
| | EC No | Index No | REACH No | | |
| | Classification (GB CLP Regulation |) | • | | |
| | reaction mass of ethylbenzene and | l xylene | | 95 - < 100 % | |
| | 905-588-0 | | 01-2119488216-32 | | |
| | Flam. Liq. 3, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1; H226 H332 H312 H315 H319 H335 H373 H304 | | | | |
| 68082-29-1 | Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine | | | | |
| | 500-191-5 | | 01-2119972320-44 | | |
| | Skin Irrit. 2, Eye Dam. 1, Skin Sens | H317 H411 | | | |
| 108-88-3 | toluene | | | < 1 % | |
| | 203-625-9 | 601-021-00-3 | 01-2119471310-51 | | |
| | Flam. Liq. 2, Repr. 2, Skin Irrit. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1, Aquatic Chronic 3; H225 H361d H315 H336 H373 H304 H412 | | | | |

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



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Specific Conc. Limits, M-factors and ATE

| CAS No | EC No | Chemical name | Quantity |
|------------|--|---|--------------|
| | Specific Conc. I | Limits, M-factors and ATE | |
| | 905-588-0 | reaction mass of ethylbenzene and xylene | 95 - < 100 % |
| | l I | 0 = 6700 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: ng/kg; oral: LD50 = 3523 mg/kg | |
| 68082-29-1 | 500-191-5 | Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine | < 1 % |
| | dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 2000 mg/kg | | |
| 108-88-3 | 203-625-9 | toluene | < 1 % |
| | inhalation: LC5 | 0 = 28,1 mg/l (vapours); dermal: LD50 = > 5000 mg/kg; oral: LD50 = 5580 mg/kg | |

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). First aider: Pay attention to self-protection!

After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Medical treatment necessary. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Where appropriate artificial ventilation.

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. Medical treatment necessary. After contact with skin, wash immediately with plenty of water and soap. If skin irritation or rash 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. 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. Aspiration hazard If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label. If unconscious but breathing normally, place in recovery position and seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed

Headache, Dizziness, Irritation to respiratory tract, Allergic reactions. Causes skin and eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Symptoms can occur only after several hours.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2), Foam, Extinguishing powder. Water mist,

Unsuitable extinguishing media

Water. Full water jet

5.2. Special hazards arising from the substance or mixture

Flammable. Vapours can form explosive mixtures with air. Vapours are heavier than air, spread along floors and form explosive mixtures with air. Beware of reignition.

In case of fire may be liberated: Hydrogen chloride (HCI), Chlorine (CI2), Phosgene, Carbon dioxide (CO2),



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Carbon monoxide.

5.3. Advice for firefighters

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

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

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.

Special danger of slipping by leaking/spilling product.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

For containment

Prevent spread over a wide area (e.g. by containment or oil barriers).

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.

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. When using do not eat, drink or smoke. Avoid contact with skin, eyes and clothes. Wash hands before breaks and after work.

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

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.

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



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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.

Hints on joint storage

Do not store together with: Oxidizing agent. Pyrophoric or self-heating substances. Strong acid, Strong alkali, Water

7.3. Specific end use(s)

Adhesion promotor (Adhesion Promotor)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

| CAS No | Substance | ppm | mg/m³ | fibres/ml | Category | Origin |
|----------|-----------|-----|-------|-----------|---------------|--------|
| 108-88-3 | Toluene | 50 | 191 | | TWA (8 h) | WEL |
| | | 100 | 384 | | STEL (15 min) | WEL |



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DNEL/DMEL values

| CAS No | Substance | | | |
|--------------------------|---|------------------------------|-------------------------|----------------------|
| DNEL type | | Exposure route | Effect | Value |
| | reaction mass of ethylbenzene and xylene | | | |
| Worker DNEL, | long-term | inhalation | systemic | 221 mg/m³ |
| Worker DNEL, | acute | inhalation | systemic | 442 mg/m³ |
| Worker DNEL, | long-term | inhalation | local | 221 mg/m³ |
| Worker DNEL, | acute | inhalation | local | 442 mg/m³ |
| Worker DNEL, | long-term | dermal | systemic | 212 mg/kg bw/day |
| Consumer DN | EL, long-term | inhalation | systemic | 65,3 mg/m³ |
| Consumer DN | EL, acute | inhalation | systemic | 260 mg/m³ |
| Consumer DN | EL, long-term | inhalation | local | 65,3 mg/m³ |
| Consumer DN | EL, acute | inhalation | local | 260 mg/m³ |
| Consumer DN | EL, long-term | dermal | systemic | 125 mg/kg bw/day |
| Consumer DN | EL, long-term | oral | systemic | 12,5 mg/kg bw/day |
| 68082-29-1 | Fatty acids, C18-unsatd., dimers, oligomeric reaction produ | ucts with tall-oil fatty aci | ds and triethylenetetra | mine |
| Worker DNEL, | long-term | inhalation | systemic | 3,9 mg/m³ |
| Worker DNEL, | long-term | dermal | systemic | 1,1 mg/kg bw/day |
| Consumer DN | EL, long-term | inhalation | systemic | 0,97 mg/m³ |
| Consumer DN | EL, long-term | dermal | systemic | 0,56 mg/kg bw/day |
| Consumer DN | EL, long-term | oral | systemic | 0,56 mg/kg bw/day |
| 108-88-3 | toluene | | | |
| Worker DNEL, | long-term | inhalation | systemic | 192 mg/m³ |
| Worker DNEL, | acute | inhalation | systemic | 384 mg/m³ |
| Worker DNEL, | long-term | inhalation | local | 192 mg/m³ |
| Worker DNEL, | acute | inhalation | local | 384 mg/m³ |
| Worker DNEL, long-term | | dermal | systemic | 384 mg/kg bw/day |
| Consumer DNEL, long-term | | inhalation | systemic | 56,5 mg/m³ |
| Consumer DNEL, acute | | inhalation | systemic | 226 mg/m³ |
| Consumer DNEL, long-term | | inhalation | local | 56,5 mg/m³ |
| Consumer DNEL, acute | | inhalation | local | 226 mg/m³ |
| Consumer DN | EL, long-term | dermal | systemic | 226 mg/kg bw/day |
| Consumer DN | EL, long-term | oral | systemic | 8,13 mg/kg bw/day |



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PNEC values

| CAS No | Substance | |
|---------------------|--|--------------------------------|
| Environment | al compartment | Value |
| | reaction mass of ethylbenzene and xylene | |
| Freshwater | | 0,327 mg/l |
| Freshwater (| intermittent releases) | 0,327 mg/l |
| Marine water | | 0,327 mg/l |
| Freshwater s | sediment | 12,46 mg/kg |
| Marine sedin | nent | 12,46 mg/kg |
| Micro-organi | sms in sewage treatment plants (STP) | 6,58 mg/l |
| Soil | | 2,31 mg/kg |
| 68082-29-1 | Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty | acids and triethylenetetramine |
| Freshwater | | 0,004 mg/l |
| Freshwater (| intermittent releases) | 0,043 mg/l |
| Marine water | r | 0 mg/l |
| Freshwater s | sediment | 434,02 mg/kg |
| Marine sedin | nent | 43,4 mg/kg |
| Micro-organia | sms in sewage treatment plants (STP) | 3,84 mg/l |
| Soil | | 86,78 mg/kg |
| 108-88-3 | toluene | |
| Freshwater | | 0,68 mg/l |
| Freshwater (| intermittent releases) | 0,68 mg/l |
| Marine water | | 0,68 mg/l |
| Freshwater sediment | | |
| Marine sedin | nent | 16,39 mg/kg |
| Micro-organia | sms in sewage treatment plants (STP) | 13,61 mg/l |
| Soil | | 2,89 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. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc.

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: NBR (Nitrile rubber), Butyl caoutchouc (butyl rubber)



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Breakthrough times and swelling properties of the material must be taken into consideration.

Skin protection

Use of protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Filter type: A2-P3

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Environmental exposure controls

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid
Colour: amber
Odour: Solvent

Changes in the physical state

Melting point/freezing point:

Boiling point or initial boiling point and

> 139,1 °C

boiling range:

Flash point: 27 °C

Flammability

Solid/liquid: not applicable Gas: not applicable

Explosive properties

The product is not: Explosive. Vapours can form explosive mixtures with air.

Lower explosion limits: 1,1 vol. %
Upper explosion limits: 7 vol. %
Auto-ignition temperature: 463 °C
Decomposition temperature: not determined
pH-Value: not determined
Viscosity / dynamic: 10 mPa·s

(at 25 °C)

Viscosity / kinematic: 12 mm²/s

(at 25 °C)

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

Vapour pressure: 8,21 hPa

(at 20 °C)

Density (at 20 °C): 0,87 g/cm³
Relative vapour density: not determined



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9.2. Other information

Information with regard to physical hazard classes

Oxidizing properties

The product is not: oxidising.

Other safety characteristics

Solid content: not determined Evaporation rate: not determined

Further Information

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable. Flammable

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Heating causes rise in pressure with risk of bursting.

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.

10.5. Incompatible materials

Strong acid, Strong alkali, Oxidising agent, Water

10.6. Hazardous decomposition products

In case of fire may be liberated: Hydrogen chloride (HCI), Chlorine (CI2), Phosgene, Carbon dioxide (CO2), Carbon monoxide.

SECTION 11: Toxicological information

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

Acute toxicity

Harmful in contact with skin.

Harmful if inhaled.

ATEmix calculated

ATE (dermal) 1145,8 mg/kg; ATE (inhalation vapour) 11,46 mg/l; ATE (inhalation dust/mist) 1,562 mg/l



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| CAS No | Chemical name | | | | | | | |
|------------|---|---------------|-----------|---------|--|--|--|--|
| | Exposure route | Dose | | Species | Source | Method | | |
| | reaction mass of ethylbe | nzene and | xylene | | | | | |
| | oral | LD50 mg/kg | 3523 | Rat | Study report (1986) | EU Method B.1 | | |
| | dermal | LD50 mg/kg | 12126 | Rabbit | Publication (1962) | Single dermal dose under occlusion follo | | |
| | inhalation (4 h) vapour | LC50 | 6700 mg/l | Rat | Toxicol Appl Pharmacol 33:543-558. (1975 | EU Method B.2 | | |
| | inhalation dust/mist | 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 | | |
| 108-88-3 | toluene | | | | | | | |
| | oral | LD50 mg/kg | 5580 | Rat | Toxicology 4, 5-15 (1975) | EU Method B.1 | | |
| | dermal | LD50 mg/kg | > 5000 | Rabbit | American Industrial Hygiene Association | Study investigated mortality in groups o | | |
| | inhalation (4 h) vapour | LC50 | 28,1 mg/l | Rat | Study report (1980) | OECD Guideline 403 | | |

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

After eye contact: Conjunctival redness. Causes tears.

Sensitising effects

May cause an allergic skin reaction. (Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine)

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

May cause respiratory irritation. (reaction mass of ethylbenzene and xylene)

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (reaction mass of ethylbenzene and xylene)

Aspiration hazard

May be fatal if swallowed and enters airways.

Further 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

The product is not: Ecotoxic.



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| CAS No | Chemical name | | | | | | | |
|------------|---|----------------|----------|-----------|--|--|--|--|
| | Aquatic toxicity | Dose | | [h] [d] | Species | Source | Method | |
| | reaction mass of ethylbenzene and xylene | | | | | | | |
| | Acute fish toxicity | LC50 | 8,4 mg/l | 96 h | Oncorhynchus mykiss | Ecotoxicology and Environmental Safety. | OECD Guideline 203 | |
| | Acute algae toxicity | ErC50 | 4,9 mg/l | 72 h | Pseudokirchneriella subcapitata | Ecotoxicology and Environmental Safety. | OECD Guideline 201 | |
| | Acute crustacea toxicity | EC50 mg/l | > 3,4 | 48 h | Ceriodaphnia dubia | Ecotoxicology and Environmental Safety 3 | other: US EPA 600/4-91-003 | |
| | Fish toxicity | NOEC mg/l | > 1,3 | 56 d | Oncorhynchus mykiss | Appl. Sci. Branch, Eng. Res. Cent. Denve | Fish were exposed in artificial streams | |
| | Crustacea toxicity | NOEC mg/l | 1,17 | 7 d | Ceriodaphnia dubia | Ecotoxicology and Environmental Safety 3 | other: US EPA 600/4-91-003 | |
| | Acute bacteria toxicity | (EC50 mg/l) | > 175 | 0,5 h | Activated sludge | Research Journal WPCF 60(10) 1850-1856 (| OECD Guideline 209 | |
| 68082-29-1 | Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine | | | | | | | |
| | Acute fish toxicity | LC50 mg/l | 7,07 | 96 h | Danio rerio | Study report (2013) | OECD Guideline 203 | |
| | Acute algae toxicity | ErC50 mg/l | 4,34 | 72 h | Pseudokirchneriella subcapitata | Study report (2013) | OECD Guideline 201 | |
| | Acute bacteria toxicity | (EC50 mg/l) | 384 | 3 h | activated sludge of a predominantly domestic sewag | Study report (2012) | OECD Guideline 209 | |
| 108-88-3 | toluene | | | | | | | |
| | Acute fish toxicity | LC50 | 5,5 mg/l | 96 h | Oncorhynchus kisutch | Transactions A. Fish. Soc. 110, 430-436. | Fry were exposed to toluene in a flow th | |
| | Acute algae toxicity | ErC50 | 134 mg/l | | | GESTIS | | |
| | Acute crustacea toxicity | EC50 mg/l | 3,78 | 48 h | | | | |
| | Fish toxicity | NOEC mg/l | 1,39 | 40 d | Oncorhynchus kisutch | Transactions A. Fish. Soc. 110, 430-436. | Fry were exposed to toluene in a flow th | |
| | Crustacea toxicity | NOEC mg/l | 0,74 | 7 d | Ceriodaphnia dubia | Ecotoxicol. Environ. Saf. 39, 136-146. (| other: US EPA 600/4-91-003 | |
| | Acute bacteria toxicity | (EC50 | 84 mg/l) | | | | | |

12.2. Persistence and degradability

The product has not been tested.



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| CAS No | Chemical name | | | | |
|----------|---|-------|----|--------|--|
| | Method | Value | d | Source | |
| | Evaluation | | | | |
| | reaction mass of ethylbenzene and xylene | | | | |
| | OECD 301F | 90% | 28 | | |
| | Readily biodegradable (according to OECD criteria). | | | | |
| 108-88-3 | toluene | | | | |
| | | 86 | 20 | | |
| | Biodegradable. | | | | |

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|----------|---|---------|
| | reaction mass of ethylbenzene and xylene | 3,2 |
| | Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine | 10,34 |
| 108-88-3 | toluene | 2,73 |

BCF

| CAS No | Chemical name | BCF | Species | Source |
|------------|---|----------------|--------------------------|----------------------|
| | reaction mass of ethylbenzene and xylene | > 5,5 - < 12,2 | Oncorhynchus mykiss | Appl. Sci. Branch, E |
| 68082-29-1 | Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine | 77,4 | no data | (2013) |
| 108-88-3 | toluene | 90 | Leuciscus idus melanotus | Chemosphere 14 (10). |

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

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. The product contains organically bound halogen as per formulation. It may increase the AOX value when discharged from treatment plants or into natural waters.

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.

List of Wastes Code - residues/unused products



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140603 WASTE ORGANIC SOLVENTS, REFRIGERANTS AND PROPELLANTS (EXCEPT 07 AND 08);

waste organic solvents, refrigerants and foam/aerosol propellants; other solvents and solvent

mixtures; 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)

14.1. UN number or ID number: UN 1133 **14.2. UN proper shipping name:** Adhesives

14.3. Transport hazard class(es):314.4. Packing group:IIIHazard label:3



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

Other applicable information (land transport)

Contaminated packaging - Instructions: P001 IBC03 LP01 R001

Contaminated packaging - Special provisions: PP1 Special provisions for packing together: MP19

Portable tanks - Instructions: T2

Portable tanks - Special provisions: TP1

Tank coding: LGBF

Inland waterways transport (ADN)

14.1. UN number or ID number:UN 113314.2. UN proper shipping name:Adhesives

14.3. Transport hazard class(es):314.4. Packing group:IIIHazard label:3



3

Classification code: F1
Limited quantity: 5 L
Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number or ID number: UN 1133 **14.2. UN proper shipping name:** Adhesives

14.3. Transport hazard class(es):



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14.4. Packing group:
Hazard label: 3



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

Other applicable information (marine transport)

Contaminated packaging - Instructions: P001, LP01

Contaminated packaging - Provisions: PP1

IBC - Instructions: IBC03
IBC - Provisions: -

Tank instructions - IMO: Tank instructions - UN: T2

Tank instructions - Provisions: TP1 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)

14.1. UN number or ID number: UN 1133 **14.2. UN proper shipping name:** Adhesives

14.3. Transport hazard class(es):314.4. Packing group:IIIHazard label:3



Special Provisions:

Limited quantity Passenger:

Passenger LQ:

Y344

Excepted quantity:

E1

IATA-packing instructions - Passenger:355IATA-max. quantity - Passenger:60 LIATA-packing instructions - Cargo:366IATA-max. quantity - Cargo:220 L

Other applicable information (air transport)

Emergency Response Guide-Code (ERG): 3L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Warning: Combustible liquid.

14.7. Maritime transport in bulk according to IMO instruments

No data 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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Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 48

2010/75/EU (VOC): 97 % (843,9 g/l) 2004/42/EC (VOC): 97 % (843,9 g/l)

Information according to 2012/18/EU

(SEVESO III):

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile

P5c FLAMMABLE LIQUIDS

work protection guideline' (94/33/EC).

Water hazard class (D): 2 - obviously hazardous to water

Skin resorption/Sensitization: Permeates easily through outer skin and causes poisoning. Causes

allergic hypersensitivity reactions.

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): 1,2,4,5,6,7,8,9,10,11,12,13,14,15,16.

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%

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

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

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

ICAO: International Civil Aviation Organization



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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).

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

| | <u> </u> |
|---------------------|--------------------------|
| Classification | Classification procedure |
| Flam. Liq. 3; H226 | On basis of test data |
| Acute Tox. 4; H312 | Calculation method |
| Acute Tox. 4; H332 | Calculation method |
| Asp. Tox. 1; H304 | Calculation method |
| Skin Irrit. 2; H315 | Calculation method |
| Eye Irrit. 2; H319 | Calculation method |
| Skin Sens. 1; H317 | Calculation method |
| STOT SE 3; H335 | Calculation method |
| STOT RE 2; H373 | Calculation method |

Relevant H and EUH statements (number and full text)

| H225 | Highly flammable liquid and vapour. |
|-----------|---|
| H226 | Flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin. |
| H312+H332 | Harmful in contact with skin or if inhaled. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |

H361d Suspected of damaging the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

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.)