SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2015/830



ROOF

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

1.1. Product identifier

| Product name | : ROOF |
|---------------------------|----------------------------|
| Registration number REACH | : Not applicable (mixture) |
| Product type REACH | : Mixture |

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

1.2.1 Relevant identified uses

Sealing compound

1.2.2 Uses advised against

No uses advised against known

1.3. Details of the supplier of the safety data sheet

Supplier of the safety data sheet

TEC7* Industrielaan 5B B-2250 Olen +32 14 85 97 37 **→** +32 14 85 97 38 info@tec7.be *TEC7 is a registered trademark of Novatech International Industrielaan 5B

Manufacturer of the product

Novatech International N.V. Industrielaan 5B B-2250 Olen **2** +32 14 85 97 37 **山** +32 14 85 97 38 info@tec7.be

1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch):

+32 14 58 45 45 (BIG)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

| Classified as dange | rous according to the | criteria of Regulation (EC) No 1272/2008 |
|---------------------|-----------------------|--|
| Class | Category | Hazard statements |
| Flam. Liq. | category 3 | H226: Flammable liquid and vapour. |
| STOT RE | category 2 | H373: May cause damage to organs (central nervous system) through prolonged or repeated exposure if inhaled. |
| STOT SE | category 3 | H336: May cause drowsiness or dizziness. |
| Aquatic Chronic | category 3 | H412: Harmful to aquatic life with long lasting effects. |

2.2. Label elements



Contains: hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics; hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%); hydrocarbons, C9, aromatics.

| Signal word H-statements | Warning | | |
|---|---|--|------------------|
| H226 | Flammable liquid and vapour. | | |
| H373 | May cause damage to organs (central nervous | system) through prolonged or repeated exposure if inha | ied. |
| H336 | May cause drowsiness or dizziness. | | |
| H412 | Harmful to aquatic life with long lasting effects | 5. | |
| P-statements | | | |
| P101 | If medical advice is needed, have product con | tainer or label at hand. | |
| P102 | Keep out of reach of children. | | |
| l by: Brandweerinformat | ecentrum voor gevaarlijke stoffen vzw (BIG) | Publication date: 2003-04-16 | en |
| che Schoolstraat 43 A, B www.big.be /zw | 2440 Geel | Date of revision: 2016-09-01 | 134-16433-508-en |
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Product number: 40675

| Supplemental ir EUH066 | formation Repeated exposure may cause skin dryness or cracking. |
|---------------------------|--|
| P501 | Dispose of contents/container in accordance with local/regional/national/international regulation. |
| P405 | Store locked up. |
| P304 + P34 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P260 | Do not breathe vapours. |
| P280 | Wear protective gloves and eye protection/face protection. |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |

2.3. Other hazards

No other hazards known

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name REACH Registration No | CAS No EC No | Conc. (C) | Classification according to CLP | Note | Remark |
|--|-------------------------|---|--|---------|-------------|
| hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics D1-2119463258-33 | 64742-48-9 | 5% <c<10%< td=""><td>Flam. Liq. 3; H226 Asp. Tox. 1; H304 STOT SE 3; H336</td><td>(1)(10)</td><td>Constituent</td></c<10%<> | Flam. Liq. 3; H226 Asp. Tox. 1; H304 STOT SE 3; H336 | (1)(10) | Constituent |
| hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%) 01-2119458049-33 | 64742-82-1 | 5% <c<10%< td=""><td>Flam. Liq. 3; H226 STOT RE 1; H372 Asp. Tox. 1; H304 STOT SE 3; H336 Aquatic Chronic 2; H411</td><td>(1)(10)</td><td>Constituent</td></c<10%<> | Flam. Liq. 3; H226 STOT RE 1; H372 Asp. Tox. 1; H304 STOT SE 3; H336 Aquatic Chronic 2; H411 | (1)(10) | Constituent |
| hydrocarbons, C9, aromatics 01-2119455851-35 | 64742-95-6 | 5% <c<10%< td=""><td>Flam. Liq. 3; H226 Asp. Tox. 1; H304 STOT SE 3; H335 STOT SE 3; H336 Aquatic Chronic 2; H411</td><td>(1)(10)</td><td>Constituent</td></c<10%<> | Flam. Liq. 3; H226 Asp. Tox. 1; H304 STOT SE 3; H335 STOT SE 3; H336 Aquatic Chronic 2; H411 | (1)(10) | Constituent |
| quaternary ammonium compounds, di-C12-18- alkyldimethyl, chlorides 01-2119486994-16 | 68391-05-9 269-924-1 | C<1 % | Acute Tox. 4; H302 Skin Corr. 1B; H314 Aquatic Acute 1; H400 Aquatic Chronic 2; H411 | (1) | Constituent |
| (benzene, conc<0.1%) | | | | | |
| (DMSO extract <3%) | | | | | |

(1) For H-statements in full: see heading 16

(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

SECTION 4: First aid measures

4.1. Description of first aid measures

General:

Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.

After inhalation:

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

After skin contact:

Wash immediately with lots of water. Take victim to a doctor if irritation persists.

After eye contact:

Rinse with water. Take victim to an ophthalmologist if irritation persists.

After ingestion:

Rinse mouth with water. Do not induce vomiting. Consult a doctor/medical service if you feel unwell.

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

4.2.1 Acute symptoms

After inhalation:

EXPOSURE TO HIGH CONCENTRATIONS: Narcosis.

After skin contact:

ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Dry skin. Cracking of the skin.

Reason for revision: 2.2; 3.2; 5.1; 8.2; 13; 15.1

After eye contact: No effects known. After ingestion:

No effects known.

4.2.2 Delayed symptoms

No effects known.

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

If applicable and available it will be listed below.

SECTION 5: Firefighting measures

5.1. Extinguishing media

5.1.1 Suitable extinguishing media:

BC powder. Carbon dioxide. MAJOR FIRE: Alcohol-resistant foam.

5.1.2 Unsuitable extinguishing media:

Solid water jet ineffective as extinguishing medium.

5.2. Special hazards arising from the substance or mixture

Upon combustion CO and CO2 are formed (carbon monoxide - carbon dioxide).

5.3. Advice for firefighters

5.3.1 Instructions:

If exposed to fire cool the closed containers by spraying with water. Take account of environmentally hazardous firefighting water. Use water moderately and if possible collect or contain it.

5.3.2 Special protective equipment for fire-fighters:

Gloves. Face-shield. Protective clothing. Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Stop engines and no smoking. No naked flames or sparks. Spark- and explosionproof appliances and lighting equipment. 6.1.1 Protective equipment for non-emergency personnel

See heading 8.2

6.1.2 Protective equipment for emergency responders

Gloves. Face-shield. Protective clothing. Suitable protective clothing

See heading 8.2

6.2. Environmental precautions

Contain released product. Dam up the liquid spill. Prevent soil and water pollution. Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

Take up liquid spill into absorbent material. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Contaminated surfaces: do not clean (treat) with water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4. Reference to other sections

See heading 13.

SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

7.1. Precautions for safe handling

Keep away from naked flames/heat. Insufficient ventilation: keep naked flames/sparks away. Insufficient ventilation: use spark-/explosionproof appliances and lighting system. Observe strict hygiene. Keep container tightly closed. Remove contaminated clothing immediately. Do not discharge the waste into the drain.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1 Safe storage requirements:

Store in a cool area. Meet the legal requirements.

7.2.2 Keep away from:

Heat sources, ignition sources.

- 7.2.3 Suitable packaging material:
 - No data available

7.2.4 Non suitable packaging material:

No data available

7.3. Specific end use(s)

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

Reason for revision: 2.2; 3.2; 5.1; 8.2; 13; 15.1

| ontrol parameters | | | | | |
|--|-------------------------|-------------------------------------|--|---------------------------|---------|
| 1 Occupational exposure a) Occupational exposure limit | alues | | | | |
| If limit values are applicable and | | he listed helow | | | |
| | | be listed below. | | | |
| b) National biological limit value | | | | | |
| If limit values are applicable and | available these will | be listed below. | | | |
| 2 Sampling methods | h a link al h al avv | | | | |
| If applicable and available it will | | an university of interneted | | | |
| 3 Applicable limit values when If limit values are applicable and | - | | | | |
| 4 DNEL/PNEC values | available these will | be listed below. | | | |
| DNEL/DMEL - Workers | | | | | |
| hydrocarbons, C9-C11, n-alkanes | s, isoalkanes, cyclics, | < 2% aromatics | | | |
| Effect level (DNEL/DMEL) | Type | | Value | Remark | |
| DNEL | Long-term sys | temic effects inhalation | 1500 mg/m ³ | | |
| | Long-term sys | temic effects dermal | 300 mg/kg bw/ | /day | |
| hydrocarbons, C9-C12, n-alkanes | , isoalkanes, cyclics, | aromatics (2-25%) | | • | |
| Effect level (DNEL/DMEL) | Туре | | Value | Remark | |
| DNEL | | temic effects inhalation | 330 mg/m ³ | | |
| | Long-term sys | temic effects dermal | 44 mg/kg bw/c | lay | |
| hydrocarbons, C9, aromatics | | | | | |
| Effect level (DNEL/DMEL) | Туре | | Value | Remark | |
| DNEL | | temic effects inhalation | 150 mg/m³ | | |
| | | temic effects dermal | 25 mg/kg bw/c | day | |
| quaternary ammonium compou | | limethyl, chlorides | | | |
| Effect level (DNEL/DMEL) | Туре | | Value | Remark | |
| DNEL | | temic effects inhalation | 27 mg/m³ | | |
| | | temic effects dermal | 12.75 mg/kg b | w/day | |
| DNEL/DMEL - General populatio | | | | | |
| hydrocarbons, C9-C11, n-alkanes | | | | | |
| Effect level (DNEL/DMEL) | Туре | | Value | Remark | |
| DNEL | | temic effects inhalation | 900 mg/m ³ 300 mg/kg bw/ | <i>·</i> ·· | |
| | <i>i</i> | Long-term systemic effects dermal | | | |
| hudrosorhono CO C12 n alkana | | temic effects oral | 300 mg/kg bw, | /day | |
| | | alkanes, cyclics, aromatics (2-25%) | | Dement | |
| Effect level (DNEL/DMEL) DNEL | Type | temic effects inhalation | Value 71 mg/m ³ | Remark | |
| DIVLE | | temic effects dermal | 26 mg/kg bw/c | 1 av | |
| | <i>i</i> | temic effects oral | 26 mg/kg bw/c | | |
| hydrocarbons, C9, aromatics | | | | | |
| Effect level (DNEL/DMEL) | Туре | | Value | Remark | |
| DNEL | | temic effects inhalation | 32 mg/m ³ | | |
| | <i>i</i> | temic effects dermal | 11 mg/kg bw/c | day | |
| | Long-term sys | temic effects oral | 11 mg/kg bw/c | | |
| quaternary ammonium compou | | | | | |
| Effect level (DNEL/DMEL) | Туре | | Value | Remark | |
| DNEL | Long-term sys | temic effects inhalation | 8 mg/m³ | | |
| | <i>i</i> | temic effects dermal | 7.65 mg/kg bw | | |
| | Long-term sys | temic effects oral | 2.3 mg/kg bw/ | day | |
| PNEC | | | | | |
| quaternary ammonium compou | nds, di-C12-18-alkylo | | | | |
| Compartments | | Value | Re | emark | |
| Fresh water | | 13 μg/l | | | |
| Salt water | | 1.3 μg/l | | | |
| Aqua (intermittent releases) | | 2.6 μg/l | | | |
| STP | | 1.2 mg/l | | | |
| Fresh water sediment | | 8.8 mg/kg sediment dw | | | |
| Marine water sediment | | 0.88 mg/kg sediment dw | | | |
| Soil | | 7 mg/kg soil dw | | | |
| 5 Control banding | | | | | |
| If applicable and available it will | be listed below. | | | | |
| · · | | | | | |
| xposure controls | | | | | |
| xposure controls | onoral description | f applicable and available, exposu | o constinctor and attache | d in annov Always use the | olovant |

Date of revision: 2016-09-01

8.2.1 Appropriate engineering controls

Keep away from naked flames/heat. Insufficient ventilation: keep naked flames/sparks away. Insufficient ventilation: use spark-/explosionproof appliances and lighting system. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

8.2.2 Individual protection measures, such as personal protective equipment

Observe strict hygiene. Keep container tightly closed. Do not eat, drink or smoke during work.

a) Respiratory protection:

Insufficient ventilation: wear respiratory protection.

b) Hand protection:

Gloves.

| Materials | Breakthrough time | Thickness |
|-----------|-------------------|-----------|
| | > 480 minutes | >0.12 mm |

c) Eye protection:

Protective goggles.

d) Skin protection:

Protective clothing.

8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Physical form | Liquid |
|---------------------------|--|
| Odour | Characteristic odour |
| Odour threshold | No data available |
| Colour | Black |
| Particle size | No data available |
| Explosion limits | 0.6 - 7.0 vol % |
| Flammability | Flammable liquid and vapour. |
| Log Kow | Not applicable (mixture) |
| Dynamic viscosity | 108000 mPa.s ; 20 °C |
| Kinematic viscosity | No data available |
| Melting point | No data available |
| Boiling point | 130 °C |
| Flash point | 31 °C |
| Evaporation rate | No data available |
| Relative vapour density | > 1.0 |
| Vapour pressure | 3.7 hPa ; 20 °C |
| | 15 hPa ; 50 °C |
| Solubility | water ; insoluble |
| Relative density | 1.13 ; 20 °C |
| Decomposition temperature | No data available |
| Auto-ignition temperature | > 200 °C |
| Explosive properties | No chemical group associated with explosive properties |
| Oxidising properties | No chemical group associated with oxidising properties |
| рН | Not applicable |

9.2. Other information

Absolute density

1130 kg/m³ ; 20 °C

SECTION 10: Stability and reactivity

10.1. Reactivity

May be ignited by sparks.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Keep away from naked flames/heat. Insufficient ventilation: keep naked flames/sparks away. Insufficient ventilation: use spark-/explosionproof appliances and lighting system.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

Upon combustion CO and CO2 are formed (carbon monoxide - carbon dioxide).

Reason for revision: 2.2; 3.2; 5.1; 8.2; 13; 15.1

SECTION 11: Toxicological information

11.1. Information on toxicological effects

11.1.1 Test results

Acute toxicity

ROOF

No (test)data on the mixture available

hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics

| Parameter | Method | Value | Exposure time | Species | Value | Remark |
|-----------|----------------------|---|---|--|--|---|
| | | | | | determination | |
| LD50 | OECD 401 | > 15000 mg/kg bw | | Rat (male/female) | Read-across | |
| | | > 3160 mg/kg bw | | | Read-across | |
| | · · | > 5.6 mg/l air | 4 h | Rat (male/female) | Read-across | |
| | LD50 LD50 LC50 | LD50 OECD 401 LD50 Equivalent to OECD 402 | LD50 OECD 401 > 15000 mg/kg bw LD50 Equivalent to OECD > 3160 mg/kg bw 402 LC50 Equivalent to OECD > 5.6 mg/l air | LD50 OECD 401 > 15000 mg/kg bw LD50 Equivalent to OECD > 3160 mg/kg bw 24 h 402 2 2 2 LC50 Equivalent to OECD > 5.6 mg/l air 4 h | LD50 OECD 401 > 15000 mg/kg bw Rat (male/female) LD50 Equivalent to OECD > 3160 mg/kg bw 24 h Rabbit (male/female) LC50 Equivalent to OECD > 5.6 mg/l air 4 h Rat (male/female) | LD50 OECD 401 > 15000 mg/kg bw Rat (male/female) Read-across LD50 Equivalent to OECD > 3160 mg/kg bw 24 h Rabbit (male/female) Read-across LD50 Equivalent to OECD > 5.6 mg/l air 4 h Rat (male/female) Read-across |

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

| Route of exposure | Parameter | Method | Value | Exposure time | Species | Value | Remark |
|----------------------|-----------|---------------------------|------------------|---------------|-------------------|--------------------|--------|
| | | | | | | determination | |
| Oral | LD50 | Equivalent to OECD 401 | > 15000 mg/kg bw | | Rat (male/female) | Experimental value | |
| Dermal | LD50 | Other | > 3400 mg/kg bw | 24 h | Rat (male/female) | Experimental value | |
| Inhalation (vapours) | LC50 | Equivalent to OECD 403 | > 13.1 mg/l air | 4 h | Rat (male/female) | Experimental value | |

hydrocarbons, C9, aromatics

| Route of exposure | Parameter | Method | Value | Exposure time | Species | Value | Remark |
|----------------------|-------------|---------------------------|------------------|---------------|-------------------------|------------------------|--------|
| | | | | | | determination | |
| Oral | LD50 | | > 6984 mg/kg bw | | Rat (male) | Experimental value | |
| Dral | LD50 | | 3492 mg/kg bw | | Rat (female) | Experimental value | |
| Dermal | LD50 | Equivalent to OECD 402 | > 3160 mg/kg bw | 24 h | Rabbit (male/female) | Experimental value | |
| Inhalation (vapours) | LC50 | Equivalent to OECD 403 | > 6.193 mg/l air | 4 h | Rat (male/female) | Experimental value | |
| ternary ammonium o | ompounds, d | li-C12-18-alkyldimethy | l, chlorides | • | • | | |
| Route of exposure | Parameter | Method | Value | Exposure time | Species | Value determination | Remark |
| Oral | LD50 | Equivalent to OECD 401 | 960 mg/kg bw | | Rat (male/female) | Experimental value | |
| | | | | | | | |

4 h

0.25 mg/l

Inhalation (aerosol) LC50 OECD 403 Judgement is based on the relevant ingredients

Conclusion

Not classified for acute toxicity

Corrosion/irritation

Dermal

ROOF

No (test)data on the mixture available

hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics

| Route of exposure | Result | Method | Exposure time | Time point | Species | Value determination | Remark |
|------------------------|------------------------------|---------------------------|----------------|---------------------|-------------------------------------|------------------------|--------------------------------|
| Eye | Not irritating | Equivalent to OECD 405 | | 24; 48; 72 hours | Rabbit | Read-across | Single treatn without rinsi |
| Skin | Not irritating | Equivalent to OECD 404 | 4 h | 24; 48; 72 hours | Rabbit | Read-across | |
| drocarbons, C9-C12 | , n-alkanes, isoalka | nes, cyclics, aromatics | <u>(2-25%)</u> | • | | | |
| Route of exposure | Result | Method | Exposure time | Time point | Species | Value determination | Remark |
| Eye | Not irritating | OECD 405 | | 24; 48; 72 hours | Rabbit | Experimental value | |
| Skin | Not irritating | OECD 404 | 4 h | 24; 48; 72 hours | Rabbit | Experimental value | |
| Skin | Not irritating | Human | 4 h - 6 h | 24; 48 hours | Human | Experimental value | |
| drocarbons, C9, aro | matics | | | | | | |
| Route of exposure | Result | Method | Exposure time | Time point | Species | Value determination | Remark |
| Eye | Not irritating | Equivalent to OECD 405 | | 1; 24; 48; 72 hours | Rabbit | Experimental value | |
| Skin | Slightly irritating | OECD 404 | 4 h | 24; 48; 72 hours | Rabbit | Experimental value | |
| Inhalation | Irritating; STOT SE cat.3 | | | | | Expert judgement | |
| for revision: 2.2; 3.2 | ; 5.1; 8.2; 13; 15.1 | | | | ublication date ate of revision: | | |

Data waiving

Experimental value

Rat (male/female)

| | Result | Method | | Exposure time | Time point | Species | Value | Remark |
|---|--|--|--|--|--|---|--|--|
| Eye | Serious eye | Equivalent | to OECD | 30 seconds | 24; 48; 72 hrs; 4 | Rabbit | determination Experimental valu | e |
| Chin | damage Corrective | 405 | | 24 h | days | Dabbit | | |
| Skin Idgement is based or | Corrosive | ingredients | | 24 h | | Rabbit | Experimental valu | e |
| nclusion ot classified as irritat ot classified as irritat ot classified as irritat atory or skin sensitis | ting to the eyes ting to the resp | 5 | | | | | | |
| - o (test)data on the n ydrocarbons, C9-C11 | | | < 2% aror | natics | | | | |
| Route of exposure | | Method | | Exposure time | Observation time | Species | Value determination | Remark |
| Skin | Not sensitizing | Equivalent to | OECD | | 24; 48 hours | Guinea pig | Read-across | |
| | | 406 | | | | (female) | | |
| ydrocarbons, C9-C12 Route of exposure | | Method | | (2-25%) Exposure time | Observation time | Species | Value determination | Bomark |
| Noute of exposure | Nesun | Wethou | | LAPOSULE UITE | point | Species | value determination | |
| Skin | Not sensitizing | OECD 406 | | | 24; 48 hours | Guinea pig (male/female) | Experimental value | |
| | Not sensitizing | Human obsei | | 3 weeks (5 days/week) | 24; 48 hours | Human (male/female) | Experimental value | |
| vdrocarbons, C9, aro | | | | | | L | | I- - - |
| Route of exposure | | Method | | Exposure time | Observation time point | | Value determination | Remark |
| | Not sensitizing | | | | 24; 48 hours | Guinea pig (female) | Experimental value | |
| uaternary ammoniur Route of exposure | | di-C12-18-alkyldi Method | | hlorides Exposure time | Observation time | Species | Value determination | Bomork |
| | | | | exposure time | point | | value determination | Remark |
| Skin | Not sensitizing | OECD 406 | | | | Guinea pig (female) | Read-across | |
| ot classified as sensi ot classified as sensi c target organ toxici | tizing for inhala ty | ition | | | | | | |
| (test)data on the mix | | | | | | | | |
| (test)data on the mix ydrocarbons, C9-C11 | <u>, n-alkanes, isc</u> | | <u>< 2% aror</u> | natics | | | | |
| | | | < 2% aror Value | natics Organ | Effect | Exposure time | Species | Value |
| vdrocarbons, C9-C11 | | Method Equivalent to | Value ≥ 1000 m | Organ | Effect No effect | Exposure time ≥ 15 day(s) | Rat | determina |
| Route of exposure | e Parameter | Method | Value | Organ | | | | determina Read-acros |
| Vdrocarbons, C9-C11 Route of exposure Oral (diet) Dermal Inhalation (vapours) | Parameter NOAEL NOAEL | Method Equivalent to OECD 422 Equivalent to OECD 413 | Value ≥ 1000 m bw/day > 1160 m air | organ ng/kg ng/m ³ | | | Rat (male/female) | determinat Read-acros Data waivir |
| Vdrocarbons, C9-C11 Route of exposure Oral (diet) Dermal Inhalation (vapours) Vdrocarbons, C9-C12 | Parameter NOAEL NOAEL NOAEL | Method Equivalent to OECD 422 Equivalent to OECD 413 alkanes, cyclics, | Value ≥ 1000 m bw/day > 1160 m air aromatics | Organ ng/kg ng/m ³ | No effect No effect | ≥ 15 day(s) 13 weeks (6h/o days/week) | day, 5 Rat (male/female) day, 5 Rat (male/female) | determina Read-acros Data waivii Read-acros |
| Vdrocarbons, C9-C11 Route of exposure Oral (diet) Dermal Inhalation (vapours) | Parameter NOAEL NOAEL NOAEL | Method Equivalent to OECD 422 Equivalent to OECD 413 | Value ≥ 1000 m bw/day > 1160 m air | organ ng/kg ng/m ³ | No effect | ≥ 15 day(s) | day, 5 Rat (male/female) day, 5 Rat (male/female) | determina Read-acros Data waivin Read-acros |
| Vdrocarbons, C9-C11 Route of exposure Oral (diet) Dermal Inhalation (vapours) Vdrocarbons, C9-C12 | Parameter NOAEL NOAEL NOAEL | Method Equivalent to OECD 422 Equivalent to OECD 413 alkanes, cyclics, | Value ≥ 1000 m bw/day > 1160 m air aromatics | Organ ng/kg ng/m ³ (2-25%) Organ | No effect No effect | ≥ 15 day(s) 13 weeks (6h/o days/week) | day, 5 Rat (male/female) day, 5 Rat (male/female) | determinat Read-acros Data waivir Read-acros |
| ydrocarbons, C9-C11 Route of exposure Oral (diet) Dermal Inhalation (vapours) ydrocarbons, C9-C12 Route of exposure Oral (stomach | Parameter NOAEL NOAEL NOAEL , n-alkanes, iso Parameter | A Reprint to the second | Value ≥ 1000 m bw/day > 1160 m air aromatics Value 1056 mg | Organ ng/kg ng/m³ | No effect No effect Effect No effect No effect No effect No effect | ≥ 15 day(s) 13 weeks (6h/o days/week) Exposure time | day, 5 Rat (male/female) day, 5 Rat (male/female) Species | determina Read-acros Data waivin Read-acros Value determina Experiment value |
| ydrocarbons, C9-C11 Route of exposure Oral (diet) Dermal Inhalation (vapours) ydrocarbons, C9-C12 Route of exposure Oral (stomach tube) | Parameter NOAEL NOAEL NOAEL NOAEL Parameter NOAEL NOAEL NOAEL NOAEL systemic | Alkanes, cyclics, Method Equivalent to OECD 422 Equivalent to OECD 413 Colored 413 Colored 413 Colored 413 Colored 413 Equivalent to OECD 408 Equivalent to | Value ≥ 1000 n bw/day > 1160 n air aromatics Value 1056 mg bw/day > 495 mg | Organ ng/kg ng/m³ | No effect No effect Effect No effect No effect No effect No effect | ≥ 15 day(s) 13 weeks (6h/a) days/week) Exposure time 30 day(s) 13 weeks (5 | Aat (male/female) day, 5 Rat (male/female) Species Rat (female) Rat (female) | determina Read-acros Data waivin Read-acros Value determina Experimen value Read-acros |
| ydrocarbons, C9-C11 Route of exposure Oral (diet) Dermal Inhalation (vapours) ydrocarbons, C9-C12 Route of exposure Oral (stomach tube) Dermal Inhalation | Parameter NOAEL NOAEL NOAEL NOAEL Parameter NOAEL NOAEL NOAEL NOAEL systemic effects | Alkanes, cyclics, . Method Equivalent to OECD 422 Equivalent to OECD 413 Correlation DECD 413 Correlation DECD 408 Equivalent to OECD 408 Equivalent to OECD 411 Equivalent to | Value ≥ 1000 n bw/day > 1160 n air aromatics Value 1056 mg bw/day > 495 mg bw/day | Organ ng/kg ng/m³ organ organ organ /kg g/kg | No effect No effect Effect No effect No effect No effect No adverse systemic effect | ≥ 15 day(s) 13 weeks (6h/adays/week) Exposure time 30 day(s) 13 weeks (5 days/week) 13 weeks (6h/adays/week) 13 weeks (6h/adays/week) | Aat (male/female) day, 5 Rat (male/female) Species Rat (female) Rat (female) day, 5 Rat (female) | determina Read-acros Data waivin Read-acros Value determina Experimen value Read-acros |
| ydrocarbons, C9-C11 Route of exposure Oral (diet) Dermal Inhalation (vapours) ydrocarbons, C9-C12 Route of exposure Oral (stomach tube) Dermal Inhalation (vapours) Inhalation | Parameter NOAEL NOAEL NOAEL NOAEL Parameter NOAEL NOAEL NOAEL NOAEL systemic effects NOAEC | Alkanes, cyclics, . Method Equivalent to OECD 422 Equivalent to OECD 413 Correlation DECD 413 Equivalent to OECD 408 Equivalent to OECD 411 Equivalent to OECD 413 Equivalent to | Value ≥ 1000 n bw/day > 1160 n air aromatics Value 1056 mg bw/day > 495 mg bw/day 690 ppm | Organ ng/kg | No effect No effect Effect No effect No effect No adverse systemic effect No effect Wo effect | ≥ 15 day(s) 13 weeks (6h/adays/week) Exposure time 30 day(s) 13 weeks (5 days/week) 13 weeks (6h/adays/week) 13 weeks (6h/adays/week) 13 weeks (6h/adays/week) | Aat (male/female) day, 5 Rat (male/female) Species Rat (female) Rat (female) day, 5 Rat (female) day, 5 Rat (female) | determinat Read-acros Data waivir Read-acros Value determinat Experiment value Read-acros Experiment value |

Revision number: 1000

| hyc | rocarbons, C9, arom | natics | | | | | | | |
|-----|-------------------------|------------|---------------------------|---------------------|----------|----------------|-----------------------------------|----------------------|------------------------|
| | Route of exposure | Parameter | Method | Value | Organ | Effect | Exposure time | Species | Value determination |
| | Oral (stomach tube) | NOAEL | · · | 600 mg/kg bw/day | | No effect | 13 weeks (daily) | Rat (male/female) | Read-across |
| | Dermal | | | | | | | | Data waiving |
| | Inhalation (vapours) | NOAEC | Equivalent to OECD 452 | 1800 mg/m³ air | | No effect | 52 weeks (6h/day, 5 days/week) | Rat (male) | Read-across |
| qua | ternary ammonium | compounds, | di-C12-18-alkyldi | imethyl, chloride | <u>s</u> | | | | |
| | Route of exposure | Parameter | Method | Value | Organ | Effect | Exposure time | Species | Value determination |
| | Oral (diet) | NOAEL | OECD 408 | 1500 ppm | | No effect | 93 day(s) | Rat (male/female) | Read-across |
| | Oral (diet) | LOAEL | OECD 408 | 3000 ppm | | Histopathology | 93 day(s) | Rat (male/female) | Read-across |

Classification is based on the relevant ingredients

Conclusion

May cause drowsiness or dizziness.

May cause damage to organs (central nervous system) through prolonged or repeated exposure if inhaled.

Not classified as sub-chronically toxic in contact with skin

Not classified as sub-chronically toxic if swallowed

Mutagenicity (in vitro)

ROOF

No (test)data on the mixture available

| (test)data on the mixture avai | | | | |
|--|---|-----------------------------|-----------|---------------------|
| Irocarbons, C9-C11, n-alkanes, Result | isoalkanes, cyclics, < 2% aroma Method | Test substrate | Effect | Value determination |
| | | | | Read-across |
| Negative with metabolic | OECD 473 | Human lymphocytes | No effect | Read-across |
| activation, negative without metabolic activation | | | | |
| drocarbons, C9-C12, n-alkanes, | isoalkanos cyclics aromatics (| | | |
| Result | Method | Test substrate | Effect | Value determination |
| | Equivalent to OECD 473 | | No effect | |
| Negative with metabolic activation, negative without | Equivalent to DECD 473 | Human lymphocytes | NO effect | Experimental value |
| metabolic activation | | | | |
| Negative with metabolic | Equivalent to OECD 471 | Bacteria (S.typhimurium) | No effect | Experimental value |
| activation, negative without | | | NO ENECL | |
| metabolic activation | | | | |
| Negative with metabolic | Equivalent to OECD 479 | Chinese hamster ovary (CHO) | No effect | Read-across |
| activation, negative without | | chinese hamster ovary (cho) | No enect | ineau-acioss |
| metabolic activation | | | | |
| drocarbons, C9, aromatics | | | | |
| Result | Method | Test substrate | Effect | Value determination |
| Negative with metabolic | Equivalent to OECD 471 | Bacteria (S.typhimurium) | No effect | Experimental value |
| activation, negative without | | | | |
| metabolic activation | | | | |
| aternary ammonium compoun | ds, di-C12-18-alkyldimethyl, ch | lorides | | |
| Result | Method | Test substrate | Effect | Value determination |
| Negative with metabolic | OECD 473 | Human lymphocytes | | Experimental value |
| activation, negative without | | | | |
| metabolic activation | | | | |
| Negative with metabolic | OECD 471 | Bacteria (S.typhimurium) | | Experimental value |
| activation, negative without | | | | |
| | | | | |

Mutagenicity (in vivo)

ROOF

No (test)data on the mixture available

metabolic activation

hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics

| | Result | Method | Exposure time | Test substrate | Organ | Value determination |
|-----|--|------------------------|----------------|---------------------|-------------|---------------------|
| | Negative | Equivalent to OECD | | Mouse (male/female) | Bone marrow | Read-across |
| | | 474 | | | | |
| hyd | rocarbons, C9-C12, n-alkanes, isoalkar | es, cyclics, aromatics | <u>(2-25%)</u> | | | |
| | Result | Method | Exposure time | Test substrate | Organ | Value determination |
| | Negative | Equivalent to OECD | | Mouse (male/female) | Bone marrow | Read-across |
| | | 474 | | | | |
| | Negative | Equivalent to OECD | | Mouse (male/female) | Bone marrow | Read-across |
| | | 475 | | | | |

Reason for revision: 2.2; 3.2; 5.1; 8.2; 13; 15.1

hydrocarbons, C9, aromatics

| Result | Method | Exposure time | Test substrate | Organ | Value determination |
|----------|--------------------|---------------|----------------|-------------|---------------------|
| Negative | Equivalent to OECD | 5 day(s) | Rat (male) | Bone marrow | Experimental value |
| | 475 | | | | |

Judgement is based on the relevant ingredients

Conclusion

Not classified for mutagenic or genotoxic toxicity

Carcinogenicity

ROOF

No (test)data on the mixture available

| <u>hydrocar</u> | rbons, C9- | C11, n-alkane | s, isoalkanes, cyclic | <u>s, < 2% aromatics</u> | | | | | |
|-----------------|------------|---------------|---------------------------|-----------------------------|------------------------------------|--------------|---------------------------|-------|------------------------|
| Rout expo | | Parameter | Method | Value | Exposure time | Species | Effect | Organ | Value determination |
| Inhal (vapo | | NOAEC | Equivalent to OECD 453 | . | 105 weeks (6h/day, 5 days/week) | Rat (female) | No carcinogenic effect | | Read-across |
| Derm | nal | Dose level | Equivalent to OECD 451 | 50 μl | 104 week(s) | Mouse (male) | No carcinogenic effect | | Read-across |
| hydrocar | rbons, C9- | C12, n-alkane | s, isoalkanes, cyclic | s, aromatics (2-25 | <u>%)</u> | | | | |
| Rout | e of | Parameter | Method | Value | Exposure time | Species | Effect | Organ | Value |
| ехро | sure | | | | | | | | determination |
| Inhal | ation | NOAEC | Equivalent to | ≥ 2200 mg/m³ air | 105 weeks (6h/day, | Rat (female) | No carcinogenic | | Read-across |
| (vapo | ours) | | OECD 453 | | 5 days/week) | | effect | | |
| hydrocar | rbons, C9, | aromatics | | | | | | | |
| Rout expo | | Parameter | Method | Value | Exposure time | Species | Effect | Organ | Value determination |
| Unkn | nown | | | | | | | | Data waiving |

Judgement is based on the relevant ingredients

Conclusion

Not classified for carcinogenicity

Reproductive toxicity

ROOF

No (test)data on the mixture available

hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics

| | Parameter | Method | Value | Exposure time | Species | Effect | Organ | Value determination |
|------------------------|-----------|---------------------------|---------------------|--------------------------------------|----------------------|-----------|-------|------------------------|
| Developmental toxicity | NOAEL | Equivalent to OECD 414 | ≥ 5220 mg/m³ air | 10 days (6h/day) | Rat | No effect | | Experimental value |
| Maternal toxicity | NOAEL | Equivalent to OECD 414 | > 5220 ppm | 10 days (6h/day) | Rat (female) | No effect | | Experimental value |
| Effects on fertility | NOAEL | Equivalent to OECD 415 | ≥ 2200 mg/m³ air | 14 weeks (6h/day, 5 days/week) | Rat (male/female) | No effect | | Read-across |

| | Parameter | Method | Value | Exposure time | Species | Effect | 1.0. | Value determination |
|------------------------|-----------|---------------------------|------------------------|---------------------|----------------------|-----------|--------|------------------------|
| Developmental toxicity | NOAEL | Equivalent to OECD 414 | ≥ 5220 mg/m³ air | 10 days (6h/day) | Rat | No effect | Foetus | Experimental value |
| Maternal toxicity | NOAEL | Equivalent to OECD 414 | ≥ 5220 mg/m³ air | | Rat | No effect | | Experimental value |
| Effects on fertility | NOAEL | Equivalent to OECD 416 | ≥ 300 mg/kg bw/day | | Rat (male/female) | No effect | | Experimental value |
| | NOAEL | Equivalent to OECD 421 | ≥ 1000 mg/kg bw/day | / (- / | Rat (male/female) | No effect | | Read-across |

hydrocarbons, C9, aromatics

| | Parameter | Method | Value | Exposure time | Species | Effect | Organ | Value determination |
|------------------------|-----------|--------------------|------------|---------------|----------------------|----------------------------|---------|------------------------|
| Developmental toxicity | NOAEC | | 100 ppm | 10 day(s) | Mouse | No effect | Foetus | Experimental value |
| | LOAEC | | 500 ppm | 10 day(s) | Mouse | Reduced foetal bodyweights | Foetus | Experimental value |
| Maternal toxicity | NOAEC | | 100 ppm | 10 day(s) | Mouse | No effect | | Experimental value |
| | LOAEC | | 500 ppm | 10 day(s) | Mouse | Body weight reduction | General | Experimental value |
| Effects on fertility | NOAEC | 3 generation study | 7500 mg/m³ | | Rat (male/female) | No effect | | Experimental value |

Reason for revision: 2.2; 3.2; 5.1; 8.2; 13; 15.1

Publication date: 2003-04-16 Date of revision: 2016-09-01

Revision number: 1000

| | | Parameter | Method | Value | Exposure time | Species | Effect | Organ | Value determinati |
|---|--|---|--|------------------------------|---|----------------------|-----------|-------------------------|---|
| Developmental | toxicity | NOAEL | Equivalent to OECD 414 | ≥ 132 mg/kg bw/day | 10 days (gestation, daily) | Rat | No effect | | Experimenta value |
| Maternal toxici | ty | NOAEL | Equivalent to OECD 414 | ≥ 132 mg/kg bw/day | 10 days (gestation, daily) | Rat | No effect | | Experimenta value |
| Effects on fertil | lity | NOAEL | Equivalent to OECD 416 | 750 ppm | | Rat (male/female) | No effect | | Experimenta value |
| udgement is based <u>nclusion</u> Iot classified for re cy other effects <u>F</u> Io (test)data on th | | · | ntal toxicity | | | | | | |
| nclusion Jot classified for re cy other effects <u>F</u> Jo (test)data on th | ne mixture | e available anes, isoalkan | ntal toxicity <u>es, cyclics, < 2% ar</u> Value | omatics Organ | Effect | Exposure | e time | Species | Value |
| nclusion lot classified for re cy other effects <u>F</u> lo (test)data on th cyd <u>rocarbons, C9-0</u> | ie mixture <u>C11, n-alka</u> | e available <u>anes, isoalkan</u> o d | es, cyclics, < 2% ar | | Effect Skin dryness cracking | | | Species Human | Value determination Read-across |
| nclusion lot classified for re- cy other effects <u>F</u> lo (test)data on th cydrocarbons, C9-0 Parameter | ne mixture <u>C11, n-alka</u> Metho Humar observ | e available <u>anes, isoalkan</u> o d n <i>v</i> ation | es, cyclics, < 2% ar Value | Organ Skin | Skin drynes | | | | determination |
| nclusion lot classified for re- ry other effects E lo (test)data on the ydrocarbons, C9-0 ydrocarbons, C9-0 | e mixture C11, n-alka Metho Humar observ | e available anes, isoalkand od n vation anes, isoalkand | es, cyclics, < 2% ar Value es, cyclics, aromat | Organ Skin ics (2-25%) | Skin dryness cracking Aspiration pneumonia | 5 Or | | Human | determination Read-across Literature stur |
| nclusion lot classified for re- cy other effects <u>F</u> lo (test)data on th cydrocarbons, C9-0 Parameter | ne mixture <u>C11, n-alka</u> Metho Humar observ | e available anes, isoalkand od n vation anes, isoalkand | es, cyclics, < 2% ar Value | Organ Skin | Skin dryness cracking Aspiration | | | | determination Read-across |

| | Parameter | Method | Value | Organ | Effect | Exposure time | Species | Value |
|-----|----------------------|---------------------|---------|-------|-----------------|---------------|---------|---------------|
| | | | | | | | | determination |
| | | | | | Skin dryness or | | | Literature |
| | | | | | cracking | | | |
| Cla | ssification is based | on the relevant ing | edients | | | | | |

Conclusion

Repeated exposure may cause skin dryness or cracking.

Chronic effects from short and long-term exposure

ROOF

Impairment of the nervous system.

SECTION 12: Ecological information

12.1. Toxicity

ROOF

No (test)data on the mixture available

hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics

| | Parameter | Method | Value | Duration | Species | | Fresh/salt water | Value determination |
|---|-----------|----------|-------------|-----------|-------------------------------------|-----------------------|---------------------|----------------------------|
| Acute toxicity fishes | LL50 | OECD 203 | > 1000 mg/l | 96 h | , | Semi-static system | Fresh water | Experimental value; GLP |
| Acute toxicity invertebrates | EL50 | OECD 202 | > 1000 mg/l | 48 h | Daphnia magna | Static system | Fresh water | Experimental value; GLP |
| Toxicity algae and other aquatic plants | EL50 | OECD 201 | > 1000 mg/l | 72 h | Pseudokirchnerie Ila subcapitata | Static system | Fresh water | Experimental value; GLP |
| Long-term toxicity fish | NOELR | | 0.131 mg/l | 28 day(s) | Oncorhynchus mykiss | | Fresh water | QSAR |
| Long-term toxicity invertebrates | NOELR | | 0.23 mg/l | 21 day(s) | Daphnia magna | | Fresh water | QSAR |
| Toxicity aquatic micro- organisms | EL50 | | 0.95 mg/l | 48 h | Tetrahymena pyriformis | | Fresh water | QSAR |

Reason for revision: 2.2; 3.2; 5.1; 8.2; 13; 15.1

Publication date: 2003-04-16 Date of revision: 2016-09-01

Revision number: 1000

| | Parameter | Method | Value | Duration | Species | Test design | Fresh/salt water | Value determination |
|---|-----------------|----------------|--------------------------|-----------|-------------------------------------|-----------------------|---------------------|-------------------------------------|
| Acute toxicity fishes | LL50 | OECD 203 | 10 mg/l WAF - 30 mg/l | 96 h | Oncorhynchus mykiss | Semi-static system | Fresh water | Experimental value; GLP |
| Acute toxicity invertebrates | EL50 | OECD 202 | 10 mg/l - 22 mg/l | 48 h | Daphnia magna | Static system | Fresh water | Experimental value; GLP |
| Toxicity algae and other aquatic plants | EL50 | OECD 201 | 4.1 mg/l | 72 h | Pseudokirchnerie Ila subcapitata | Static system | Fresh water | Experimental value; Growth rate |
| Long-term toxicity fish | NOELR | | 0.13 mg/l | 28 day(s) | Oncorhynchus mykiss | | Fresh water | QSAR; Growth |
| Long-term toxicity invertebrates | EC50 | OECD 211 | 0.328 mg/l | 21 day(s) | Daphnia magna | Semi-static system | Fresh water | Read-across; Reproduction |
| Toxicity aquatic micro- organisms | EL50 | Other | 43.98 mg/l | 48 h | Tetrahymena pyriformis | | Fresh water | QSAR |
| vdrocarbons, C9, aromatics | | | • | | - · · | | | |
| | Parameter | Method | Value | Duration | Species | Test design | Fresh/salt water | Value determination |
| Acute toxicity fishes | LL50 | OECD 203 | 9.2 mg/l | 96 h | Oncorhynchus mykiss | Semi-static system | Fresh water | Experimental value; GLP |
| Acute toxicity invertebrates | EL50 | OECD 202 | 3.2 mg/l | 48 h | Daphnia magna | Static system | Fresh water | Experimental value; GLP |
| Toxicity algae and other aquatic plants | EL50 | OECD 201 | 2.9 mg/l | 72 h | Pseudokirchnerie Ila subcapitata | Static system | Fresh water | Experimental value; Growth rate |
| uaternary ammonium compound | ls, di-C12-18-a | alkyldimethyl, | <u>chlorides</u> | | | | | |
| | Parameter | Method | Value | Duration | Species | Test design | Fresh/salt water | Value determination |
| Acute toxicity fishes | LC50 | OECD 203 | 0.26 mg/l | 96 h | Danio rerio | Semi-static system | Fresh water | Experimental value; GLP |
| Acute toxicity invertebrates | LC50 | ISO 14669 | 0.295 mg/l | 48 h | Acartia tonsa | Static system | Salt water | Experimental value; GLP |
| Toxicity algae and other aquatic plants | ErC50 | OECD 201 | 0.386 mg/l | 72 h | Pseudokirchnerie Ila subcapitata | Static system | Fresh water | Experimental value; GLP |
| | NOEC | OECD 201 | 0.06 mg/l | 72 h | Pseudokirchnerie Ila subcapitata | Static system | Fresh water | Experimental value; GLP |
| Long-term toxicity fish | NOEC | US EPA | 0.053 mg/l | 35 day(s) | Pimephales promelas | | Fresh water | Read-across |
| Long-term toxicity invertebrates | NOEC | OECD 211 | 0.5 mg/l | 21 day(s) | Daphnia magna | Semi-static system | Fresh water | Experimental value; Reproduction |

Classification is based on the relevant ingredients

Conclusion

Harmful to fishes

Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Biodegradation water

| | Method | Value | Duration | Value determination | |
|-----|---|--------------------------|-----------|---------------------|--|
| | OECD 301F: Manometric Respirometry Test | 80 %; Oxygen consumption | 28 day(s) | Experimental value | |
| hvo | drocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%) | | | | |

nyurucarduns, C9-C12, II-aikaries, isuaikaries, cyclics, arumatics (2-2

| Biodegradation water | | | | | | | |
|---|-----------------------------|-----------|---------------------|--|--|--|--|
| Method | Value | Duration | Value determination | | | | |
| OECD 301F: Manometric Respirometry Test | 74.7 %; GLP | 28 day(s) | Read-across | | | | |
| hydrocarbons, C9, aromatics | nydrocarbons, C9, aromatics | | | | | | |
| Biodegradation water | | | | | | | |
| Method | Value | Duration | Value determination | | | | |
| OECD 301F: Manometric Respirometry Test | 77 %; GLP | 28 day(s) | Experimental value | | | | |

quaternary ammonium compounds, di-C12-18-alkyldimethyl, chlorides

Biodegradation water

| Dioucgradation water | | | |
|-------------------------------|-----------|-----------|---------------------|
| Method | Value | Duration | Value determination |
| OECD 301B: CO2 Evolution Test | 61 %; GLP | 28 day(s) | Experimental value |

Conclusion

Contains readily biodegradable component(s)

12.3. Bioaccumulative potential

ROOF

Log Kow

Reason for revision: 2.2; 3.2; 5.1; 8.2; 13; 15.1

| /lethod | Remark | | Value | Temperature | Value determination |
|--|---|------------------------------------|-------------------|-------------|--------------------------------------|
| | Not applic | able (mixture) | | | |
| vdrocarbons C9-C1 | 11, n-alkanes, isoalka | res cyclics < 2% | aromatics | | |
| Log Kow | 11, 11-dikanes, 150aika | 103, Cyclics, < 270 | aromatics | | |
| Method | Remai | ٢ | Value | Temperature | Value determination |
| Wethou | | a available | Value | Temperature | Value determination |
| vdrocarbons. C9-C1 | 12, n-alkanes, isoalka | | atics (2-25%) | | |
| Log Kow | <u>12) II analies) issand</u> | | | | |
| Method | Remai | k | Value | Temperature | Value determination |
| Methou | Kenna | A. | 3.7 - 6.7 | | |
| | | | | | |
| vdrocarbons. C9. a | romatics | | 5.7 0.7 | | |
| ydrocarbons, C9, ar BCF other aquatic | | | 3.7 0.7 | | I |
| ydrocarbons, C9, an BCF other aquatic Parameter | | Value | Duration | Species | Value determination |
| BCF other aquatic | organisms | Value 10 - 2500 | | Species | Value determination |
| BCF other aquatic Parameter | e organisms Method EPIWIN BCF (v | | | Species | |
| BCF other aquatic Parameter BCF | e organisms Method EPIWIN BCF (v | 10 - 2500 | | Species | |
| BCF other aquatic Parameter BCF Log Kow | e organisms Method EPIWIN BCF (v 2.15) Remai | 10 - 2500 | Duration | | Calculated value |
| BCF other aquatic Parameter BCF Log Kow | e organisms Method EPIWIN BCF (v 2.15) Remain No dat | 10 - 2500 k | Duration | | Calculated value |
| BCF other aquatic Parameter BCF Log Kow Method | e organisms Method EPIWIN BCF (v 2.15) Remain No dat | 10 - 2500 k | Duration | | Calculated value |
| BCF other aquatic Parameter BCF Log Kow Method DMSO extract <3%) | e organisms Method EPIWIN BCF (v 2.15) Remain No dat | 10 - 2500 k a available | Duration | | Calculated value |
| BCF other aquatic Parameter BCF Log Kow Method DMSO extract <3%) Log Kow | : organisms Method EPIWIN BCF (v 2.15) Remai No dat Nemai | 10 - 2500 k a available | Duration Value | Temperature | Calculated value Value determination |
| BCF other aquatic Parameter BCF Log Kow Method DMSO extract <3%) Log Kow | : organisms Method EPIWIN BCF (v 2.15) Remai No dat Nemai | 10 - 2500 k a available k | Duration Value | Temperature | Calculated value Value determination |

hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Percent distribution

| Method | Fraction air | | Fraction sediment | Fraction soil | Fraction water | Value determination |
|------------------|--------------|-----|----------------------|---------------|----------------|---------------------|
| Mackay level III | 80 % | 0 % | 13 % | 3.4 % | 3.6 % | Calculated value |

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Percent distribution

| Method | Fraction air | Fraction sediment | Fraction soil | Fraction water | Value determination |
|------------------|--------------|--------------------------|---------------|----------------|---------------------|
| Mackay level III | 96 % | 1.3 % | 0.077 % | 1.4 % | Calculated value |

Conclusion

Contains component(s) with potential for mobility in the soil

12.5. Results of PBT and vPvB assessment

Due to insufficient data no statement can be made whether the component(s) fulfil(s) the criteria of PBT and vPvB according to Annex XIII of Regulation (EC) No 1907/2006.

12.6. Other adverse effects

<u>ROOF</u>

Fluorinated greenhouse gases (Regulation (EU) No 517/2014)

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

Ground water

Ground water pollutant

hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Ground water

Ground water pollutant

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Ground water

Ground water pollutant

hydrocarbons, C9, aromatics

Ground water

Ground water pollutant

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

Reason for revision: 2.2; 3.2; 5.1; 8.2; 13; 15.1

13.1. Waste treatment methods

13.1.1 Provisions relating to waste

Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014.

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).

08 04 09* (wastes from MFSU of adhesives and sealants (including waterproofing products): waste adhesives and sealants containing organic solvents or other hazardous substances). Depending on branch of industry and production process, also other waste codes may be applicable.

13.1.2 Disposal methods

Incinerate under surveillance with energy recovery. Should not be landfilled with household waste. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Do not discharge into drains or the environment.

13.1.3 Packaging/Container

Waste material code packaging (Directive 2008/98/EC).

15 01 10* (packaging containing residues of or contaminated by dangerous substances).

SECTION 14: Transport information

Road (ADR)

| 4.1. UN number | |
|--|--|
| Transport | Not subject |
| 4.2. UN proper shipping name | |
| 4.3. Transport hazard class(es) | |
| Hazard identification number | |
| Class | |
| Classification code | |
| 4.4. Packing group | |
| Packing group | |
| Labels | |
| 4.5. Environmental hazards | |
| Environmentally hazardous substance mark | no |
| 4.6. Special precautions for user | |
| Special provisions | |
| Limited quantities | |
| Specific mention | Viscous liquid with flash point \geq 23°C and \leq 60°C, which meets the conditions indicated in 2.2.3.1.5 of ADR, is not subject to ADR |

Rail (RID)

| 14.1. UN number | |
|--|--|
| Transport | Not subject |
| 14.2. UN proper shipping name | |
| 14.3. Transport hazard class(es) | |
| Hazard identification number | |
| Class | |
| Classification code | |
| 14.4. Packing group | |
| Packing group | |
| Labels | |
| 14.5. Environmental hazards | |
| Environmentally hazardous substance mark | no |
| 14.6. Special precautions for user | |
| Special provisions | |
| Limited quantities | |
| Specific mention | Viscous liquid with flash point ≥23°C and ≤60°C, which meets the |
| | conditions indicated in 2.2.3.1.5 of RID, is not subject to RID |

Inland waterways (ADN)

| 14. <u>1</u> . UN number | |
|--|------------------------------|
| Transport | Not subject |
| 14.2. UN proper shipping name | |
| 14.3. Transport hazard class(es) | |
| Class | |
| Classification code | |
| 14.4. Packing group | |
| Packing group | |
| Labels | |
| 14.5. Environmental hazards | |
| Environmentally hazardous substance mark | no |
| 14.6. Special precautions for user | |
| n for revision: 2.2; 3.2; 5.1; 8.2; 13; 15.1 | Publication date: 2003-04-16 |
| | Date of revision: 2016-09-01 |
| | |

ROOF Special provisions Limited quantities Specific mention Viscous liquid with flash point \geq 23°C and \leq 60°C, which meets the conditions indicated in 2.2.3.1.5 of ADN, is not subject to ADN

Sea (IMDG/IMSBC)

| 14.1. UN number | |
|---|---|
| UN number | 1139 |
| 14.2. UN proper shipping name | |
| Proper shipping name | coating solution (hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, 2% aromatics) |
| L 14.3. Transport hazard class(es) | 2/000000000 |
| Class | 3 |
| L4.4. Packing group | |
| Packing group | |
| Labels | 3 |
| L4.5. Environmental hazards | |
| Marine pollutant | - |
| Environmentally hazardous substance mark | no |
| 14.6. Special precautions for user | |
| Special provisions | 955 |
| Limited quantities | Combination packagings: not more than 5 liters per inner packaging fo liquids. A package shall not weigh more than 30 kg. (gross mass) |
| Specific mention | Viscous liquid with flash point ≥23°C and ≤60°C, which meets the conditions indicated in 2.3.2.5 of IMDG, is not subject to IMDG Code chapters 4.1, 5.2 and 6.1 |
| 14.7. Transport in bulk according to Annex II of Marpol and | d the IBC Code |
| Annex II of MARPOL 73/78 | Not applicable, based on available data |
| (ICAO-TI/IATA-DGR) | |
| 14. <u>1</u> . UN number | |
| UN number | 1139 |
| 14.2. UN proper shipping name | |
| Proper shipping name | Coating solution (hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics |

| Proper shipping name | Coating solution (hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics) |
|--|---|
| 14.3. Transport hazard class(es) | |
| Class | 3 |
| 14.4. Packing group | |
| Packing group | |
| Labels | 3 |
| 14.5. Environmental hazards | |
| Environmentally hazardous substance mark | no |
| 14.6. Special precautions for user | |
| Special provisions | A3 |
| limited quantities: maximum net quantity per packaging | 10 L |

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

European legislation:

VOC content Directive 2010/75/EU

| VOC content | | Remark | | | |
|----------------------------------|----------------|----------|--|---------------------|--------------------------|
| 24.30 % | | | | | |
| 274.6 g/l | | | | | |
| /OC content Directive 2004/42/EC | | | | | |
| Maximum value | EC limit value | Category | | Subcategory | Notation |
| 274.6 g/l | 840 g/l | IIB | | e: Special finishes | 2004/42/IIB(e)(840)274.6 |

REACH Annex XVII - Restriction

Contains component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

| | Designation of the substance, of the group of substances or of the mixture | Conditions of restriction |
|--|--|---|
| isoalkanes, cyclics, < 2% aromatics hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%) hydrocarbons, C9, aromatics | regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: | Shall not be used in: ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays, tricks and jokes, games for one or more participants, or any article intended to be used as such, even with ornamental aspects, 2. Articles not complying with paragraph 1 shall not be placed on the market.3. Shall not be placed on the market if they contain a colouring agent, |

Reason for revision: 2.2; 3.2; 5.1; 8.2; 13; 15.1

| ROOF | | | |
|---|--|--|--|
| | types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F; (b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10; (c) hazard class 4.1; (d) hazard class 5.1. | unless required for fiscal reasons, or perfume, or both, if they: — can be used as fuel in decorative oil lamps for supply to the general public, and, — present an aspiration hazard and are labelled with R65 or H304.4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met: a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach or children"; and, by 1 December 2010, "Just a sip of lamp oil — or even sucking the wick of lamps oil market by 1 December 2010 as follows: "Just a sip of grill lighter may lead to life- threatening lung damage"; b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: "Just a sip of grill lighter may lead to life threatening lung damage"; c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to bar if appropriate, grill lighter fluids, and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public. To Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 | |
| hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%) hydrocarbons, C9, aromatics | 2 or 3, flammable solids category 1 or 2, | Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following: metallic glitter intended mainly for decoration, artificial snow and frost, "whoopee" cushions, silly string aerosols, imitation excrement, horns for parties, actificial cobwebs, stlik bombs.2. Without prejudice to the application of other Community provisions on th classification, packaging and labelling of substances, suppliers shall ensure before the placir on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with: "For professional users only".3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unle they conform to the requirements indicated. | |

National legislation Belgium

<u>ROOF</u>

No data available

National legislation The Netherlands ROOF

| K | ROOF | | |
|---|---------------------------|---|--|
| | Waste identification (the | LWCA (the Netherlands): KGA category 03 | |
| | Netherlands) | | |
| | Waterbezwaarlijkheid | A (3) | |
| | | | |

National legislation France

<u>ROOF</u>

No data available

National legislation Germany

ROOF

| | WGK | 2; Classification water polluting based on the components in compliance with Verwaltungsvorschrift wassergefährdender | | |
|----------|---|---|--|--|
| | | Stoffe (VwVwS) of 27 July 2005 (Anhang 4) | | |
| <u>h</u> | hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics | | | |
| | TA-Luft | 5.2.5 | | |
| h | hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%) | | | |
| | TA-Luft | 5.2.5; I | | |

National legislation United Kingdom ROOF

No data available

Other relevant data

<u>ROOF</u>

No data available

15.2. Chemical safety assessment

Reason for revision: 2.2; 3.2; 5.1; 8.2; 13; 15.1

No chemical safety assessment has been conducted for the mixture.

SECTION 16: Other information

Full text of any H-statements referred to under headings 2 and 3:

- H226 Flammable liquid and vapour.
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H314 Causes severe skin burns and eye damage.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H372 Causes damage to organs (central nervous system) through prolonged or repeated exposure if inhaled.
- H373 May cause damage to organs (central nervous system) through prolonged or repeated exposure if inhaled.
- H400 Very toxic to aquatic life.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.

| (*) | INTERNAL CLASSIFICATION BY BIG |
|--------------|--|
| CLP (EU-GHS) | Classification, labelling and packaging (Globally Harmonised System in Europe) |
| DMEL | Derived Minimal Effect Level |
| DNEL | Derived No Effect Level |
| EC50 | Effect Concentration 50 % |
| ErC50 | EC50 in terms of reduction of growth rate |
| LC50 | Lethal Concentration 50 % |
| LD50 | Lethal Dose 50 % |
| NOAEL | No Observed Adverse Effect Level |
| NOEC | No Observed Effect Concentration |
| OECD | Organisation for Economic Co-operation and Development |
| PBT | Persistent, Bioaccumulative & Toxic |
| PNEC | Predicted No Effect Concentration |
| STP | Sludge Treatment Process |
| vPvB | very Persistent & very Bioaccumulative |
| | |

M-factor

| quaternary ammonium compounds, di-C12-18-alkyldimethyl, | 1 | Acute | ECHA |
|---|---|-------|------|
| chlorides | | | |

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Old versions must be destroyed. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.

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