

Trade name: Armaflex 520

Current version : 10.0.0, issued: 28.01.2021

Replaced version: 9.0.0, issued: 20.08.2020

Region: GB

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

1.1 Product identifier

Trade name

Armaflex 520

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

Relevant identified uses of the substance or mixture

Adhesive for processing all flexible Armaflex insulation materials
For industrial and professional use only

Uses advised against

No data available.

1.3 Details of the supplier of the safety data sheet

Address

Armacell GmbH
Robert-Bosch-Straße 10
48153 Münster

Telephone no. +49 (0) 251 - 7603-200

Fax no. +49 (0) 251 - 7603-561

e-mail info.de@armacell.com

Information provided by / telephone

Dr. Heribert Quante, Tel.: +49 (0) 251 - 7603-227

Advice on Safety Data Sheet

heribert.quante@armacell.com

1.4 Emergency telephone number

For medical advice (in German and English):

+49 (0)551 192 40 (Giftinformationszentrum Nord)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 (CLP)

Aquatic Chronic 2; H411

Eye Irrit. 2; H319

Flam. Liq. 2; H225

STOT SE 3; H336

Classification information

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:

Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP

Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)

Hazard pictograms



GHS02



GHS07



GHS09

Signal word

Danger

Hazardous component(s) to be indicated on label:

Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane

ethyl-acetate

acetone

butanone

Hazard statement(s)

H225

Highly flammable liquid and vapour.

H319

Causes serious eye irritation.

H336

May cause drowsiness or dizziness.

H411

Toxic to aquatic life with long lasting effects.

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Hazard statements (EU)

EUH066 Repeated exposure may cause skin dryness or cracking.
 EUH208 Contains rosin; colophony. May produce an allergic reaction.

Precautionary statement(s)

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P261 Avoid breathing vapours/spray.
 P280 Wear protective gloves/protective clothing/eye protection.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P312 Call a POISON CENTER/doctor if you feel unwell.
 P501 Dispose of contents/container to a facility in accordance with local and national regulations.

2.3 Other hazards

Vapours can form an explosive mixture with air.
 PBT assessment
 The components of this product are not considered to be a PBT.
 vPvB assessment
 The components of this product are not considered to be a vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable. The product is not a substance.

3.2 Mixtures

Hazardous ingredients

| No | Substance name | | Additional information | |
|----|--|---|------------------------|-----|
| | CAS / EC / Index / REACH no | Classification (EC) 1272/2008 (CLP) | Concentration | % |
| 1 | Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane | | | |
| | 64742-49-0 926-605-8 - 01-2119486291-36 | Aquatic Chronic 2; H411 Asp. Tox. 1; H304 Flam. Liq. 2; H225 STOT SE 3; H336 EUH066 | > 25.00 - < 40.00 | wt% |
| 2 | ethyl-acetate | | | |
| | 141-78-6 205-500-4 607-022-00-5 01-2119475103-46 | EUH066 Eye Irrit. 2; H319 Flam. Liq. 2; H225 STOT SE 3; H336 | 20.00 - < 25.00 | wt% |
| 3 | acetone | | | |
| | 67-64-1 200-662-2 606-001-00-8 01-2119471330-49 | Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 EUH066 | 10.00 - < 20.00 | wt% |
| 4 | butanone | | | |
| | 78-93-3 201-159-0 606-002-00-3 01-2119457290-43 | Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 EUH066 | 1.00 - < 5.00 | wt% |
| 5 | propan-2-ol | | | |
| | 67-63-0 200-661-7 603-117-00-0 01-2119457558-25 | Eye Irrit. 2; H319 Flam. Liq. 2; H225 STOT SE 3; H336 | 1.00 - < 2.50 | wt% |
| 6 | rosin; colophony | | | |
| | 8050-09-7 232-475-7 650-015-00-7 01-2119480418-32 | Skin Sens. 1; H317 | 0.10 - < 1.00 | wt% |
| 7 | 6,6'-DI-TERT-2,2'-METHYLENEDI-P-KRESOL (BPH) | | | |
| | 119-47-1 204-327-1 - 01-2119496065-33 | Repr. 2; H361f | 0.10 - < 1.00 | wt% |
| 8 | xylene | | | |
| | 1330-20-7 215-535-7 601-022-00-9 | Flam. Liq. 3; H226 Asp. Tox. 1; H304 Acute Tox. 4; H312 | 0.10 - < 1.00 | wt% |

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| | | | |
|------------------|--|--|--|
| 01-2119488216-32 | Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 Acute Tox. 4; H332 Aquatic Chronic 3; H412 STOT RE 2; H373 | | |
|------------------|--|--|--|

Full Text for all H-phrases and EUH-phrases: pls. see section 16

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing.

After inhalation

When inhaled remove to fresh air and seek medical aid.

After skin contact

When in contact with the skin, clean with soap and water. Consult a doctor if skin irritation persists.

After eye contact

Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). Get immediate ophthalmic treatment.

After ingestion

Do not induce vomiting. Rinse the mouth thoroughly with water. Never give anything by mouth to an unconscious person. Call a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms

Headache; Dizziness; drowsiness; Nausea; Vomiting

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide; Dry chemical extinguisher; Foam; Water spray jet

Unsuitable extinguishing media

High power water jet

5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Carbon dioxide (CO₂); Carbon monoxide (CO); Nitrogen oxides (NO_x); Hydrogen cyanide (HCN); Hydrogen chloride (HCl)

5.3 Advice for firefighters

Use self-contained breathing apparatus. Wear full protective suit. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations. Containers close to fire should be transferred to a safe place.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Refer to protective measures listed in sections 7 and 8. Exclude sources of ignition and ventilate the area. Do not inhale vapours. Remove persons to safety. Ensure adequate ventilation.

For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil. In case of entry into waterways, soil or drains, inform the responsible authorities.

6.3 Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13).

6.4 Reference to other sections

No data available.

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Provide good ventilation at the work area (local exhaust ventilation, if necessary). Risks inherent to handling the product must be minimised by applying the appropriate protective and preventive measures. Working processes should - so far as possible, according to the state of the art - be designed to rule out bodily contact or the release of hazardous substances. If workplace exposure limits are exceeded, respiratory protection approved for this particular job must be worn. For personal protection see section 8.

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Wash hands before breaks and after work. Remove soiled or soaked clothing immediately. Avoid contact with eyes and skin. Do not inhale vapours. Provide eye wash fountain in work area. Have emergency shower available.

Advice on protection against fire and explosion

Keep away from sources of ignition - refrain from smoking. No sparking tools should be used. Vapours can form an explosive mixture with air. Take precautionary measures against electrostatic loading (earthing necessary during loading operations).

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep container tightly closed in a cool, well-ventilated place. Protect from heat and direct sunlight.

Requirements for storage rooms and vessels

Containers which are opened must be carefully closed and kept upright to prevent leakage. Always keep in containers of same material as the original.

Incompatible products

Do not store together with: Acids; Bases; oxidizing agents; Do not store with combustible materials.

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

| No | Substance name | CAS no. | EC no. |
|----|--|----------|----------------------------|
| 1 | ethyl-acetate | 141-78-6 | 205-500-4 |
| | 2017/164/EU | | |
| | Ethyl acetate | | |
| | WEL short-term (15 min reference period) | 1468 | mg/m ³ 400 ppm |
| | WEL long-term (8-hr TWA reference period) | 734 | mg/m ³ 200 ppm |
| | List of approved workplace exposure limits (WELs) / EH40 | | |
| | Ethyl acetate | | |
| | WEL short-term (15 min reference period) | | 400 ppm |
| | WEL long-term (8-hr TWA reference period) | | 200 ppm |
| 2 | acetone | 67-64-1 | 200-662-2 |
| | 2000/39/EC | | |
| | Acetone | | |
| | WEL long-term (8-hr TWA reference period) | 1210 | mg/m ³ 500 ppm |
| | List of approved workplace exposure limits (WELs) / EH40 | | |
| | Acetone | | |
| | WEL short-term (15 min reference period) | 3620 | mg/m ³ 1500 ppm |
| | WEL long-term (8-hr TWA reference period) | 1210 | mg/m ³ 500 ppm |
| 3 | butanone | 78-93-3 | 201-159-0 |
| | 2000/39/EC | | |
| | Butanone | | |
| | WEL short-term (15 min reference period) | 900 | mg/m ³ 300 ppm |
| | WEL long-term (8-hr TWA reference period) | 600 | mg/m ³ 200 ppm |
| | List of approved workplace exposure limits (WELs) / EH40 | | |
| | Butan-2-one | | |
| | WEL short-term (15 min reference period) | 899 | mg/m ³ 300 ppm |
| | WEL long-term (8-hr TWA reference period) | 600 | mg/m ³ 200 ppm |
| | Comments | Sk, BMGV | |
| 4 | propan-2-ol | 67-63-0 | 200-661-7 |
| | List of approved workplace exposure limits (WELs) / EH40 | | |
| | Propan-2-ol | | |
| | WEL short-term (15 min reference period) | 1250 | mg/m ³ 500 ppm |
| | WEL long-term (8-hr TWA reference period) | 999 | mg/m ³ 400 ppm |

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DNEL, DMEL and PNEC values

DNEL values (worker)

| No | Substance name | | | CAS / EC no | |
|----|--|---------------------|----------|---------------------------------------|-------------------|
| | Route of exposure | Exposure time | Effect | Value | |
| 1 | Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane | | | 64742-49-0 926-605-8 | |
| | dermal | Long term (chronic) | systemic | 13964 | mg/kg/day |
| | inhalative | Long term (chronic) | systemic | 5306 | mg/m ³ |
| 2 | ethyl-acetate | | | 141-78-6 205-500-4 | |
| | dermal | Long term (chronic) | systemic | 63 | mg/kg/day |
| | inhalative | Short term (acut) | systemic | 1468 | mg/m ³ |
| | inhalative | Long term (chronic) | local | 734 | mg/m ³ |
| | inhalative | Short term (acut) | local | 1468 | mg/m ³ |
| | inhalative | Long term (chronic) | systemic | 734 | mg/m ³ |
| 3 | acetone | | | 67-64-1 200-662-2 | |
| | dermal | Long term (chronic) | systemic | 186 | mg/kg/day |
| | inhalative | Short term (acut) | local | 2420 | mg/m ³ |
| | inhalative | Short term (acut) | systemic | 1210 | mg/m ³ |
| 4 | butanone | | | 78-93-3 201-159-0 | |
| | dermal | Long term (chronic) | systemic | 1161 | mg/kg/day |
| | inhalative | Long term (chronic) | systemic | 600.00 | mg/m ³ |
| 5 | propan-2-ol | | | 67-63-0 200-661-7 | |
| | dermal | Long term (chronic) | systemic | 888 | mg/kg/day |
| | inhalative | Long term (chronic) | systemic | 500 | mg/m ³ |
| 6 | 6,6'-DI-TERT-2,2'-METHYLENEDI-P-KRESOL (BPH) | | | 119-47-1 204-327-1 | |
| | dermal | Long term (chronic) | systemic | 0.635 | mg/kg/day |
| | dermal | Short term (acut) | systemic | 3.175 | mg/kg/day |
| | inhalative | Long term (chronic) | systemic | 4.48 | mg/m ³ |
| | inhalative | Short term (acut) | systemic | 22.4 | mg/m ³ |

DNEL value (consumer)

| No | Substance name | | | CAS / EC no | |
|----|--|---------------------|----------|---------------------------------------|-------------------|
| | Route of exposure | Exposure time | Effect | Value | |
| 1 | Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane | | | 64742-49-0 926-605-8 | |
| | oral | Long term (chronic) | systemic | 1301 | mg/kg/day |
| | dermal | Long term (chronic) | systemic | 1377 | mg/kg/day |
| | inhalative | Long term (chronic) | systemic | 1131 | mg/m ³ |
| 2 | ethyl-acetate | | | 141-78-6 205-500-4 | |
| | oral | Long term (chronic) | systemic | 4.5 | mg/kg/day |
| | dermal | Long term (chronic) | systemic | 37 | mg/kg/day |
| | inhalative | Short term (acut) | systemic | 734 | mg/m ³ |
| | inhalative | Long term (chronic) | local | 367 | mg/m ³ |
| | inhalative | Short term (acut) | local | 734 | mg/m ³ |
| 3 | acetone | | | 67-64-1 200-662-2 | |
| | oral | Long term (chronic) | systemic | 62 | mg/kg/day |
| | dermal | Long term (chronic) | systemic | 62 | mg/kg/day |
| | inhalative | Long term (chronic) | systemic | 200 | mg/m ³ |
| 4 | butanone | | | 78-93-3 201-159-0 | |
| | oral | Long term (chronic) | systemic | 31 | mg/kg/day |
| | dermal | Long term (chronic) | systemic | 412 | mg/kg/day |
| | inhalative | Long term (chronic) | systemic | 106 | mg/m ³ |
| 5 | propan-2-ol | | | 67-63-0 200-661-7 | |
| | oral | Long term (chronic) | systemic | 26 | mg/kg/day |
| | dermal | Long term (chronic) | systemic | 319 | mg/kg/day |
| | inhalative | Long term (chronic) | systemic | 89 | mg/m ³ |
| 6 | 6,6'-DI-TERT-2,2'-METHYLENEDI-P-KRESOL (BPH) | | | 119-47-1 | |

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| | | | | | |
|------------|---------------------|----------|-------|-------------------|--|
| | | | | 204-327-1 | |
| oral | Long term (chronic) | systemic | 0.318 | mg/kg/day | |
| oral | Short term (acut) | systemic | 1.59 | mg/kg/day | |
| dermal | Long term (chronic) | systemic | 0.318 | mg/kg/day | |
| dermal | Short term (acut) | systemic | 1.59 | mg/kg/day | |
| inhalative | Long term (chronic) | systemic | 1.1 | mg/m ³ | |
| inhalative | Short term (acut) | systemic | 5.5 | mg/m ³ | |

PNEC values

| No | Substance name | CAS / EC no |
|------------------------|-------------------------------|-------------------------------------|
| ecological compartment | | Type |
| | | Value |
| 1 | ethyl-acetate | 141-78-6 205-500-4 |
| | water | fresh water |
| | | 0.24 mg/L |
| | water | marine water |
| | | 0.024 mg/L |
| | water | Aqua intermittent |
| | | 1.65 mg/L |
| | water | fresh water sediment |
| | | 1.15 mg/kg dry weight |
| | water | marine water sediment |
| | | 0.115 mg/kg dry weight |
| | soil | - |
| | | 0.148 mg/kg dry weight |
| | sewage treatment plant | - |
| | | 650 mg/L |
| | secondary poisoning | - |
| | | 200 mg/kg |
| 2 | acetone | 67-64-1 200-662-2 |
| | water | fresh water |
| | | 10.6 mg/L |
| | water | marine water |
| | | 1.06 mg/L |
| | water | Aqua intermittent |
| | | 21 mg/L |
| | water | fresh water sediment |
| | | 30.4 mg/kg |
| | water | marine water sediment |
| | | 3.04 mg/kg |
| | soil | - |
| | | 29.5 mg/kg |
| | sewage treatment plant | - |
| | | 100 mg/L |
| 3 | butanone | 78-93-3 201-159-0 |
| | water | fresh water |
| | | 55.8 mg/L |
| | water | marine water |
| | | 55.8 mg/L |
| | water | Aqua intermittent |
| | | 55.8 mg/L |
| | water | fresh water sediment |
| | | 284.74 mg/kg |
| | with reference to: dry weight | |
| | water | marine water sediment |
| | | 284.7 mg/kg |
| | with reference to: dry weight | |
| | soil | - |
| | | 22.5 mg/kg |
| | with reference to: dry weight | |
| | sewage treatment plant | - |
| | | 709 mg/L |
| | secondary poisoning | - |
| | | 1000 mg/kg |
| | with reference to: food | |
| 4 | propan-2-ol | 67-63-0 200-661-7 |
| | water | fresh water |
| | | 140.9 mg/L |
| | water | Aqua intermittent |
| | | 140.9 mg/L |
| | water | marine water |
| | | 140.9 mg/L |
| | water | fresh water sediment |
| | | 552 mg/L |
| | water | marine water sediment |
| | | 552 mg/L |
| | soil | - |
| | | 28 mg/kg |
| | sewage treatment plant | - |
| | | 2251 mg/L |
| | secondary poisoning | - |
| | | 160 mg/kg |
| | with reference to: food | |

8.2 Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, local exhaust at the work station if necessary.

Personal protective equipment

Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Respirator AX

Eye / face protection

Tightly fitting safety glasses (EN 166).

Hand protection

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Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

| | | | |
|------------------------|--------------------|-----|----|
| Appropriate Material | butyl rubber | | |
| Material thickness | > | 0.7 | mm |
| Inappropriate material | nitrile rubber | | |
| Inappropriate material | PVC | | |
| Inappropriate material | viton | | |
| Inappropriate material | Natural rubber, NR | | |

Other

Fire-resistant antistatic protective clothing.

Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|--------------------------------------|----------|
| State of aggregation | |
| liquid | |
| Form/Colour | |
| liquid | |
| Odour | |
| of solvents | |
| pH value | |
| No data available | |
| Boiling point / boiling range | |
| Value | 55 °C |
| Source | supplier |
| Melting point/freezing point | |
| No data available | |
| Decomposition temperature | |
| No data available | |
| Flash point | |
| Value | -15 °C |
| Source | supplier |
| Ignition temperature | |
| No data available | |
| Auto-ignition temperature | |
| Value | 235 °C |
| Source | supplier |
| Flammability | |
| Not applicable | |
| Source | supplier |
| Lower explosion limit | |
| No data available | |
| Upper explosion limit | |
| No data available | |
| Vapour pressure | |
| No data available | |
| Relative vapour density | |
| No data available | |
| Relative density | |
| Value | 0.85 |
| Source | supplier |
| Density | |
| No data available | |
| Solubility in water | |

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| | |
|----------|------------|
| Source | supplier |
| Comments | immiscible |

| |
|-------------------|
| Solubility |
| No data available |

| Partition coefficient n-octanol/water (log value) | | | |
|---|--|----------|-----------|
| No | Substance name | CAS no. | EC no. |
| 1 | ethyl-acetate | 141-78-6 | 205-500-4 |
| | log Pow | 6.8 | |
| | Reference temperature | 25 | °C |
| | Source | ECHA | |
| 2 | butanone | 78-93-3 | 201-159-0 |
| | log Pow | 0.3 | |
| | Reference temperature | 40 | °C |
| | Method | OECD 117 | |
| | Source | ECHA | |
| 3 | propan-2-ol | 67-63-0 | 200-661-7 |
| | log Pow | 0.05 | |
| | Reference temperature | 25 | °C |
| | Source | ECHA | |
| 4 | 6,6'-DI-TERT-2,2'-METHYLENEDI-P-KRESOL (BPH) | 119-47-1 | 204-327-1 |
| | log Pow | 6.25 | |
| | Reference temperature | 20 | °C |
| | Method | OECD 107 | |
| | Source | ECHA | |

| | | | |
|-----------------------|-----------|------|--------------------|
| Viscosity | | | |
| Value | > | 1000 | mm ² /s |
| Reference temperature | | 40 | °C |
| Type | kinematic | | |
| Source | supplier | | |

| |
|---------------------------------|
| Particle characteristics |
| No data available |

9.2 Other information

| |
|--------------------------|
| Other information |
| No data available. |

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under recommended storage and handling conditions (See section 7).

10.3 Possibility of hazardous reactions

None, when used as directed.

10.4 Conditions to avoid

Heat, naked flames and other ignition sources.

10.5 Incompatible materials

strong acids; strong bases; strong oxidizing agents; combustible materials

10.6 Hazardous decomposition products

None, if handled according to intended use. In case of fire: see section 5.

SECTION 11: Toxicological information

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

| Acute oral toxicity | | | |
|---------------------|----------------|----------|-----------------------|
| No | Substance name | CAS no. | EC no. |
| 1 | ethyl-acetate | 141-78-6 | 205-500-4 |
| | LD50 | > | 5600 mg/kg bodyweight |
| | Species | rat | |
| | Source | ECHA | |
| 2 | acetone | 67-64-1 | 200-662-2 |
| | LD50 | | 5800 mg/kg bodyweight |
| | Species | rat | |

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| | | | |
|---------------------------|---|-----------------|------------------|
| Method Source | OECD 401 ECHA | | |
| 3 | butanone | 78-93-3 | 201-159-0 |
| LD50 | | 2054 | mg/kg bodyweight |
| Species | rat | | |
| Method | OECD 423 | | |
| Source | ECHA / Read across | | |
| 4 | propan-2-ol | 67-63-0 | 200-661-7 |
| LD50 | | 5840 | mg/kg bodyweight |
| Species | rat | | |
| Method | OECD 401 | | |
| Source | ECHA | | |
| Evaluation/classification | Based on available data, the classification criteria are not met. | | |
| 5 | 6,6'-DI-TERT-2,2'-METHYLENEDI-P-KRESOL (BPH) | 119-47-1 | 204-327-1 |
| LD50 | > | 5000 | mg/kg bodyweight |
| Species | rat | | |
| Source | ECHA | | |

Acute dermal toxicity

| No | Substance name | CAS no. | EC no. |
|----------|---|-----------------|------------------|
| 1 | ethyl-acetate | 141-78-6 | 205-500-4 |
| LD50 | > | 20000 | mg/kg bodyweight |
| Species | rabbit | | |
| Source | ECHA | | |
| 2 | acetone | 67-64-1 | 200-662-2 |
| LD50 | > | 15800 | mg/kg bodyweight |
| Species | rabbit | | |
| Source | ECHA | | |
| 3 | 6,6'-DI-TERT-2,2'-METHYLENEDI-P-KRESOL (BPH) | 119-47-1 | 204-327-1 |
| LD50 | > | 10000 | mg/kg bodyweight |
| Species | rabbit | | |
| Source | ECHA | | |

Acute inhalational toxicity

| No | Substance name | CAS no. | EC no. |
|---------------------------|---|---------|--------|
| LC50 | | 76 | mg/l |
| Duration of exposure | | 4 | h |
| State of aggregation | Vapour | | |
| Species | rat | | |
| Source | ECHA | | |
| LC50 | > | 10000 | ppmV |
| Duration of exposure | | 6 | h |
| State of aggregation | Vapour | | |
| Species | rat | | |
| Method | OECD 403 | | |
| Source | ECHA | | |
| Evaluation/classification | Based on available data, the classification criteria are not met. | | |

Skin corrosion/irritation

| No | Substance name | CAS no. | EC no. |
|---------------------------|---|-------------------|------------------|
| 1 | Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane | 64742-49-0 | 926-605-8 |
| Species | rabbit | | |
| Method | OECD 404 | | |
| Source | ECHA | | |
| Evaluation | non-irritant | | |
| 2 | ethyl-acetate | 141-78-6 | 205-500-4 |
| Species | rabbit | | |
| Method | OECD 404 | | |
| Source | ECHA | | |
| Evaluation | low-irritant | | |
| Evaluation/classification | Based on available data, the classification criteria are not met. | | |
| 3 | butanone | 78-93-3 | 201-159-0 |
| Duration of exposure | | 4 | h |
| Species | rabbit | | |
| Method | OECD 404 | | |
| Source | ECHA / Read across | | |
| Evaluation | non-irritant | | |
| 4 | propan-2-ol | 67-63-0 | 200-661-7 |
| Species | rabbit | | |
| Source | ECHA | | |
| Evaluation | non-irritant | | |

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| | | | |
|--|---|---|------------------|
| Evaluation/classification | | Based on available data, the classification criteria are not met. | |
| 5 | 6,6'-DI-TERT-2,2'-METHYLENEDI-P-KRESOL (BPH) | 119-47-1 | 204-327-1 |
| Species | rabbit | | |
| Method | OECD 404 | | |
| Source | ECHA | | |
| Evaluation | non-irritant | | |
| Serious eye damage/irritation | | | |
| No | Substance name | CAS no. | EC no. |
| 1 | ethyl-acetate | 141-78-6 | 205-500-4 |
| Species | rabbit | | |
| Method | OECD 405 | | |
| Source | ECHA | | |
| Evaluation | low-irritant | | |
| 2 | butanone | 78-93-3 | 201-159-0 |
| Species | rabbit | | |
| Method | OECD 405 | | |
| Source | ECHA | | |
| Evaluation | irritant | | |
| 3 | propan-2-ol | 67-63-0 | 200-661-7 |
| Species | rabbit | | |
| Method | OECD 405 | | |
| Source | ECHA | | |
| Evaluation | irritant | | |
| Evaluation/classification | Based on available data, the classification criteria are met. | | |
| 4 | 6,6'-DI-TERT-2,2'-METHYLENEDI-P-KRESOL (BPH) | 119-47-1 | 204-327-1 |
| Species | rabbit | | |
| Method | OECD 405 | | |
| Source | ECHA | | |
| Evaluation | non-irritant | | |
| Respiratory or skin sensitisation | | | |
| No | Substance name | CAS no. | EC no. |
| 1 | ethyl-acetate | 141-78-6 | 205-500-4 |
| Route of exposure | Skin | | |
| Species | guinea pig | | |
| Method | OECD 406 | | |
| Source | ECHA | | |
| Evaluation | non-sensitizing | | |
| 2 | butanone | 78-93-3 | 201-159-0 |
| Route of exposure | Skin | | |
| Species | guinea pig | | |
| Method | OECD 406 | | |
| Source | ECHA | | |
| Evaluation | non-sensitizing | | |
| 3 | propan-2-ol | 67-63-0 | 200-661-7 |
| Route of exposure | Skin | | |
| Species | guinea pig | | |
| Method | OECD 406 | | |
| Source | ECHA | | |
| Evaluation | non-sensitizing | | |
| Evaluation/classification | Based on available data, the classification criteria are not met. | | |
| Germ cell mutagenicity | | | |
| No | Substance name | CAS no. | EC no. |
| 1 | Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane | 64742-49-0 | 926-605-8 |
| Source | ECHA / Read across | | |
| Evaluation/classification | Based on available data, the classification criteria are not met. | | |
| 2 | butanone | 78-93-3 | 201-159-0 |
| Type of examination | in vitro gene mutation study in bacteria | | |
| Species | Salmonella typhimurium | | |
| Method | OECD 471 | | |
| Source | ECHA | | |
| Evaluation/classification | Based on available data, the classification criteria are not met. | | |
| Type of examination | In vitro Mammalian Chromosomal Aberration Test | | |
| Species | rat | | |
| Method | OECD 473 | | |
| Source | ECHA | | |
| Evaluation/classification | Based on available data, the classification criteria are not met. | | |
| Type of examination | In vitro mammalian cell gene mutation test | | |
| Species | Mouse lymphoma cells | | |

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| | |
|---------------------------|---|
| Method | OECD 476 |
| Source | ECHA |
| Evaluation/classification | Based on available data, the classification criteria are not met. |
| Type of examination | In vivo mammalian somatic cell study: cytogenicity / erythrocyte micronucleus |
| Species | mouse |
| Method | OECD 474 |
| Source | ECHA |
| Evaluation/classification | Based on available data, the classification criteria are not met. |

| | | | |
|---------------------------|---|----------------|------------------|
| 3 | propan-2-ol | 67-63-0 | 200-661-7 |
| Source | ECHA | | |
| Evaluation/classification | Based on available data, the classification criteria are not met. | | |

Reproduction toxicity

| No | Substance name | CAS no. | EC no. |
|----------|--|-------------------|------------------|
| 1 | Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane | 64742-49-0 | 926-605-8 |

| | |
|---------------------------|---|
| Source | ECHA / Read across |
| Evaluation/classification | Based on available data, the classification criteria are not met. |

| | | | |
|----------|-----------------|----------------|------------------|
| 2 | butanone | 78-93-3 | 201-159-0 |
|----------|-----------------|----------------|------------------|

| | |
|-------------------|--------------|
| Route of exposure | inhalational |
|-------------------|--------------|

| | |
|---------------------------|---|
| Type of examination | Prenatal Developmental Toxicity Study |
| Species | rat |
| Method | OECD 414 |
| Source | ECHA |
| Evaluation/classification | Based on available data, the classification criteria are not met. |

| | | | |
|----------|---|-----------------|------------------|
| 3 | 6,6'-DI-TERT-2,2'-METHYLENEDI-P-KRESOL (BPH) | 119-47-1 | 204-327-1 |
|----------|---|-----------------|------------------|

| | |
|-------------------|------|
| Route of exposure | oral |
|-------------------|------|

| | | |
|-------|----|-------|
| NOAEL | 50 | mg/kg |
|-------|----|-------|

| | |
|---------|------------|
| Species | rat (male) |
| Method | OECD 421 |
| Source | ECHA |

Carcinogenicity

| No | Substance name | CAS no. | EC no. |
|----------|--|-------------------|------------------|
| 1 | Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane | 64742-49-0 | 926-605-8 |

| | |
|---------------------------|---|
| Source | ECHA / Read across |
| Evaluation/classification | Based on available data, the classification criteria are not met. |

| | | | |
|----------|-----------------|----------------|------------------|
| 2 | butanone | 78-93-3 | 201-159-0 |
|----------|-----------------|----------------|------------------|

| | |
|---------------------------|---|
| Source | ECHA |
| Evaluation/classification | Based on available data, the classification criteria are not met. |

STOT - single exposure

No data available

STOT - repeated exposure

| No | Substance name | CAS no. | EC no. |
|----------|--|-------------------|------------------|
| 1 | Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane | 64742-49-0 | 926-605-8 |

| | |
|---------------------------|---|
| Source | ECHA / Read across |
| Evaluation/classification | Based on available data, the classification criteria are not met. |

| | | | |
|----------|-----------------|----------------|------------------|
| 2 | butanone | 78-93-3 | 201-159-0 |
|----------|-----------------|----------------|------------------|

| | |
|-------------------|--------------|
| Route of exposure | inhalational |
|-------------------|--------------|

| | |
|---------------------------|---|
| Species | rat |
| Method | OECD 413 |
| Source | ECHA |
| Evaluation/classification | Based on available data, the classification criteria are not met. |

| | | | |
|----------|--------------------|----------------|------------------|
| 3 | propan-2-ol | 67-63-0 | 200-661-7 |
|----------|--------------------|----------------|------------------|

| | |
|-------------------|--------------|
| Route of exposure | inhalational |
|-------------------|--------------|

| | |
|---------------------------|---|
| Source | ECHA |
| Evaluation/classification | Based on available data, the classification criteria are not met. |

Aspiration hazard

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

11.2 Information on other hazards

Endocrine disrupting properties

No data available.

Other information

No data available.

SECTION 12: Ecological information

12.1 Toxicity

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| Toxicity to fish (acute) | | | |
|-------------------------------|--|------------|-----------|
| No | Substance name | CAS no. | EC no. |
| 1 | Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane | 64742-49-0 | 926-605-8 |
| LL50 | | 12 | mg/l |
| Duration of exposure | | 96 | h |
| Species | Oncorhynchus mykiss | | |
| Method | OECD 203 | | |
| Source | ECHA | | |
| 2 | ethyl-acetate | 141-78-6 | 205-500-4 |
| LC50 | | 230 | mg/l |
| Duration of exposure | | 96 | h |
| Species | Pimephales promelas | | |
| Source | ECHA | | |
| 3 | acetone | 67-64-1 | 200-662-2 |
| LC50 | | 5540 | mg/l |
| Duration of exposure | | 96 | h |
| Species | Oncorhynchus mykiss | | |
| Source | ECHA | | |
| 4 | butanone | 78-93-3 | 201-159-0 |
| LC50 | | 2993 | mg/l |
| Duration of exposure | | 96 | h |
| Species | Pimephales promelas | | |
| Method | OECD 203 | | |
| Source | ECHA | | |
| 5 | propan-2-ol | 67-63-0 | 200-661-7 |
| LC50 | | 9640 | mg/l |
| Duration of exposure | | 96 | h |
| Species | Pimephales promelas | | |
| Method | OECD 203 | | |
| Source | ECHA | | |
| Toxicity to fish (chronic) | | | |
| No data available | | | |
| Toxicity to Daphnia (acute) | | | |
| No | Substance name | CAS no. | EC no. |
| 1 | ethyl-acetate | 141-78-6 | 205-500-4 |
| EC50 | | 1350 | mg/l |
| Duration of exposure | | 48 | h |
| Species | Daphnia magna | | |
| Source | ECHA | | |
| 2 | acetone | 67-64-1 | 200-662-2 |
| EC50 | | 8800 | mg/l |
| Duration of exposure | | 48 | h |
| Species | Daphnia pulex | | |
| Source | ECHA | | |
| 3 | butanone | 78-93-3 | 201-159-0 |
| EC50 | | 308 | mg/l |
| Duration of exposure | | 48 | h |
| Species | Daphnia magna | | |
| Method | OECD 202 | | |
| Source | ECHA | | |
| 4 | propan-2-ol | 67-63-0 | 200-661-7 |
| EC50 | > | 10000 | mg/l |
| Duration of exposure | | 24 | h |
| Species | Daphnia magna | | |
| Method | OECD 202 | | |
| Source | ECHA | | |
| Toxicity to Daphnia (chronic) | | | |
| No data available | | | |
| Toxicity to algae (acute) | | | |
| No | Substance name | CAS no. | EC no. |
| 1 | Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane | 64742-49-0 | 926-605-8 |
| EL50 | | 26 | mg/l |
| Duration of exposure | | 72 | h |
| Species | Pseudokirchneriella subcapitata | | |
| Method | OECD 201 | | |
| Source | ECHA | | |
| 2 | butanone | 78-93-3 | 201-159-0 |

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| | | |
|----------------------|---------------------------------|------|
| EC50 | 2029 | mg/l |
| Duration of exposure | 96 | h |
| Species | Pseudokirchneriella subcapitata | |
| Method | OECD 201 | |
| Source | ECHA | |

Toxicity to algae (chronic)

No data available

Bacteria toxicity

No data available

12.2 Persistence and degradability

| Biodegradability | | | |
|------------------|--|------------------------|-----------|
| No | Substance name | CAS no. | EC no. |
| 1 | Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane | 64742-49-0 | 926-605-8 |
| Type | | aerobic biodegradation | |
| Value | | 98 | % |
| Duration | | 28 | day(s) |
| Method | OECD 301 F | | |
| Source | ECHA | | |
| Evaluation | readily biodegradable | | |
| 2 | ethyl-acetate | 141-78-6 | 205-500-4 |
| Source | ECHA | | |
| Evaluation | readily biodegradable | | |
| 3 | acetone | 67-64-1 | 200-662-2 |
| Type | | aerobic biodegradation | |
| Value | | 90.9 | % |
| Duration | | 28 | day(s) |
| Method | OECD 301 B | | |
| Source | ECHA | | |
| Evaluation | readily biodegradable | | |
| 4 | butanone | 78-93-3 | 201-159-0 |
| Type | | aerobic biodegradation | |
| Value | | 98 | % |
| Duration | | 28 | day(s) |
| Method | OECD 301 D | | |
| Source | ECHA | | |
| Evaluation | readily biodegradable | | |
| 5 | propan-2-ol | 67-63-0 | 200-661-7 |
| Type | | BOD/COD | |
| Value | | 53 | % |
| Duration | | 5 | day(s) |
| Source | ECHA | | |
| Evaluation | readily biodegradable | | |

12.3 Bioaccumulative potential

| Partition coefficient n-octanol/water (log value) | | | |
|---|--|----------|-----------|
| No | Substance name | CAS no. | EC no. |
| 1 | ethyl-acetate | 141-78-6 | 205-500-4 |
| log Pow | | 6.8 | |
| Reference temperature | | 25 | °C |
| Source | ECHA | | |
| 2 | butanone | 78-93-3 | 201-159-0 |
| log Pow | | 0.3 | |
| Reference temperature | | 40 | °C |
| Method | OECD 117 | | |
| Source | ECHA | | |
| 3 | propan-2-ol | 67-63-0 | 200-661-7 |
| log Pow | | 0.05 | |
| Reference temperature | | 25 | °C |
| Source | ECHA | | |
| 4 | 6,6'-DI-TERT-2,2'-METHYLENEDI-P-KRESOL (BPH) | 119-47-1 | 204-327-1 |
| log Pow | | 6.25 | |
| Reference temperature | | 20 | °C |
| Method | OECD 107 | | |
| Source | ECHA | | |

12.4 Mobility in soil

No data available.

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12.5 Results of PBT and vPvB assessment

| Results of PBT and vPvB assessment | |
|------------------------------------|---|
| PBT assessment | The components of this product are not considered to be a PBT. |
| vPvB assessment | The components of this product are not considered to be a vPvB. |

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effects

No data available.

12.7 Other information

| Other information |
|---|
| Do not discharge into the drains or waters and do not store on public depositories. |

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residues must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

SECTION 14: Transport information

14.1 Transport ADR/RID/ADN

| | |
|--|------------------------|
| Class | 3 |
| Classification code | F1 |
| Packing group | II |
| Hazard identification no. | 33 |
| UN number | UN1133 |
| Proper shipping name | ADHESIVES |
| Special Provision 640 | 640D |
| Tunnel restriction code | D/E |
| Label | 3 |
| Environmentally hazardous substance mark | Symbol "fish and tree" |

14.2 Transport IMDG

| | |
|-----------------------|--|
| Class | 3 |
| Packing group | II |
| UN number | UN1133 |
| Proper shipping name | ADHESIVES |
| Technical name | Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane |
| EmS | F-E, S-D |
| Label | 3 |
| Marine pollutant mark | Symbol "fish and tree" |

14.3 Transport ICAO-TI / IATA

| | |
|----------------------|-----------|
| Class | 3 |
| Packing group | II |
| UN number | UN1133 |
| Proper shipping name | Adhesives |
| Label | 3 |

14.4 Other information

No data available.

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 Special precautions for user

To be transported always in closed, upright and safe containers. Make sure that persons handling these containers are aware of the rules of conduct in case of incident or spillage.

14.7 Maritime transport in bulk according to IMO instruments

Not relevant

SECTION 15: Regulatory information

Trade name: Armaflex 520

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

EU regulations

| | |
|--|----------|
| Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation) | |
| According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006. | |
| REACH candidate list of substances of very high concern (SVHC) for authorisation | |
| According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006. | |
| Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES | |
| The product is considered being subject to REACH regulation (EC) 1907/2006 annex XVII. | No 3, 40 |
| Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances | |
| This product is subject to Part I of Annex I, risk category: | E2, P5b |
| If the properties of the substance/product give rise to more than one classification, for the purposes of 2012/18/UE, the lowest qualifying quantities set out in Part 1 and Part 2 of Annex I shall apply. | |

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this mixture.

SECTION 16: Other information

Further information

Authors responsible for the compilation of the material safety data sheet: UMCO GmbH - D-21107 Hamburg, Georg-Wilhelm-Strasse 187, Tel.: +49(40)555 546 300, Fax: +49(40)555 546 357, e-mail: umco@umco.de.

The information is based on our current knowledge however it does not represent a guarantee of product properties nor does it create any legal obligation.

Sources of key data used to compile the data sheet:

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding section.

Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

| | |
|-------|---|
| H226 | Flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H361f | Suspected of damaging fertility. |
| H373 | May cause damage to organs through prolonged or repeated exposure |
| H412 | Harmful to aquatic life with long lasting effects. |

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Prod-ID 636618