

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Rakolite™ B

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 01.04.2022 |
| 2.0 | 01.03.2024 | 100000016865 | Date of first issue: 01.04.2022 |

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Product name : Rakolite™ B

Product code : 00000000015026780

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

Use of the Sub-
stance/Mixture : Adhesive

Recommended restrictions
on use : For industrial use only.

1.3 Details of the supplier of the safety data sheet

Company : H.B. Fuller, Isar-Rakoll, S.A.

Address : Estrada Nacional 13
PT-4486-851 Mindelo - Vila do Conde
+351 229 288 200

E-mail address of person
responsible for the SDS : EU-MSDS@hbfuller.com

1.4 Emergency telephone number

Emergency telephone number : +44 1235 239 670 (24 hours)

National Poisons Information Centre (NPIC): 01 809 2566 (24 hours)

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

| | |
|---|--|
| Flammable liquids, Category 2 | H225: Highly flammable liquid and vapour. |
| Skin irritation, Category 2 | H315: Causes skin irritation. |
| Eye irritation, Category 2 | H319: Causes serious eye irritation. |
| Skin sensitisation, Category 1 | H317: May cause an allergic skin reaction. |
| Reproductive toxicity, Category 2 | H361d: Suspected of damaging the unborn child. |
| Specific target organ toxicity - single ex- | H336: May cause drowsiness or dizziness. |

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posure, Category 3, Central nervous system

Specific target organ toxicity - repeated exposure, Category 2

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

Long-term (chronic) aquatic hazard, Category 2

H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements**Labelling (REGULATION (EC) No 1272/2008)**

Hazard pictograms :



Signal word : Danger

Hazard statements :

- H225 Highly flammable liquid and vapour.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- H361d Suspected of damaging the unborn child.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H411 Toxic to aquatic life with long lasting effects.

Precautionary statements :

Prevention:

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P260 Do not breathe mist or vapours.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

Response:

- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
- P391 Collect spillage.

Hazardous components which must be listed on the label:

toluene
Formaldehyde, polymer with 4-(1,1-dimethylethyl)phenol
Rosin
dodecane-1-thiol

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2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients
3.2 Mixtures
Components

| Chemical name | CAS-No. EC-No. Index-No. Registration number | Classification | Concentration (% w/w) |
|--|--|---|--------------------------|
| toluene | 108-88-3 203-625-9 601-021-00-3 01-2119471310-51-0000 | Flam. Liq. 2; H225 Skin Irrit. 2; H315 Repr. 2; H361d STOT SE 3; H336 (Central nervous system) STOT RE 2; H373 Asp. Tox. 1; H304 Aquatic Chronic 3; H412 | >= 30 - < 50 |
| Hydrocarbons, C6, n-alkanes, iso-alkanes, cyclics, n-hexane rich | 64742-49-0 925-292-5 649-328-00-1 01-2119474209-33-0000 | Flam. Liq. 2; H225 Skin Irrit. 2; H315 Repr. 2; H360F STOT SE 3; H336 STOT RE 2; H373 (Central nervous system) Asp. Tox. 1; H304 Aquatic Chronic 2; H411 | >= 30 - < 50 |
| ethyl acetate | 141-78-6 205-500-4 607-022-00-5 01-2119475103-46-0000 | Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 (Central nervous system) EUH066 | >= 10 - < 20 |
| Formaldehyde, polymer with 4- | 25085-50-1 | Skin Sens. 1; H317 | >= 1 - < 10 |

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| (1,1-dimethylethyl)phenol | | | |
| Rosin | 8050-09-7 232-475-7 650-015-00-7 01-2119480418-32-0000 | Skin Sens. 1; H317 | $\geq 0,1 - < 1$ |
| zinc oxide | 1314-13-2 215-222-5 030-013-00-7 01-2119463881-32-0000 | Aquatic Acute 1; H400 Aquatic Chronic 1; H410 | $\geq 0,25 - < 1$ |
| dodecane-1-thiol | 112-55-0 203-984-1 01-2119491318-31-0000 | Skin Corr. 1C; H314 Eye Dam. 1; H318 Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 | $\geq 0,0025 - < 0,025$ |

For explanation of abbreviations see section 16.

SECTION 4: First aid measures
4.1 Description of first aid measures

- General advice : If on clothes, remove clothes.
Move the victim to fresh air.
Show this safety data sheet to the doctor in attendance.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- If inhaled : Remove person to fresh air. If signs/symptoms continue, get medical attention.
In case of unconsciousness bring patient into stable side position for transport.
- In case of skin contact : Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
If skin irritation persists, call a physician.
- In case of eye contact : Flush eyes with water at least 15 minutes. Get medical attention if eye irritation develops or persists.
- If swallowed : If accidentally swallowed obtain immediate medical attention.
Rinse mouth with water.
If conscious, drink plenty of water.
Do NOT induce vomiting.
If symptoms persist, call a physician.

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4.2 Most important symptoms and effects, both acute and delayed

Risks : Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause drowsiness or dizziness.
Suspected of damaging the unborn child.
May cause damage to organs through prolonged or repeated exposure.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : No further relevant information available.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Water mist
Foam
Dry powder
Carbon dioxide (CO₂)

Unsuitable extinguishing media : Water with a full water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : No further relevant information available.

5.3 Advice for firefighters

Special protective equipment for firefighters : No special protective measures against fire required.

Further information : In the event of fire, wear self-contained breathing apparatus.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Personal precautions : Remove all sources of ignition.
Use personal protective equipment.
Use breathing protection against the effects of

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fumes/dust/aerosol.
Evacuate personnel to safe areas.
Ensure adequate ventilation.

6.2 Environmental precautions

Environmental precautions : The product should not be allowed to enter drains, water courses or the soil.
Prevent the material from reaching sewage system, holes and cellars.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Non-sparking tools should be used.
Ensure adequate ventilation.
Send for recovery or disposal in suitable containers.
Dispose of contaminated material as waste according to section 13.

6.4 Reference to other sections

Refer to protective measures listed in sections 7 and 8., For disposal considerations see section 13.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Advice on safe handling : Avoid formation of dust and aerosols.
Use only with adequate ventilation.
Take note of emission threshold.
Use solvent-proof equipment.
Ensure that suitable extractors are available on processing machines.
Handle with care.
Keep eye wash bottle available on working place.
Avoid release to the environment.
Keep away from children.

Advice on protection against fire and explosion : Keep product and empty container away from heat and sources of ignition. Do not smoke. Take measures to prevent the build up of electrostatic charge. May form explosive mixtures in air. Highly volatile, flammable constituents are released during processing. In the event of fire and/or explosion do not breathe fumes. Keep breathing equipment ready. Have fire extinguishing equipment ready in case of nearby fire.

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7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep dark, cool and dry. Store in cool place.

Further information on storage conditions : Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a cool place. Heat will increase pressure and may lead to the container exploding.

7.3 Specific end use(s)

Specific use(s) : No further relevant information available.

SECTION 8: Exposure controls/personal protection
8.1 Control parameters
Occupational Exposure Limits

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Basis |
|---------------|-----------|---|------------------------------------|-------------|
| toluene | 108-88-3 | TWA | 50 ppm 192 mg/m ³ | 2006/15/EC |
| | | Further information: Indicative, Identifies the possibility of significant uptake through the skin | | |
| | | STEL | 100 ppm 384 mg/m ³ | 2006/15/EC |
| | | Further information: Indicative, Identifies the possibility of significant uptake through the skin | | |
| | | OELV - 8 hrs (TWA) | 50 ppm 192 mg/m ³ | IE OEL |
| | | Further information: Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body | | |
| | | OELV - 15 min (STEL) | 100 ppm 384 mg/m ³ | IE OEL |
| | | Further information: Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body | | |
| ethyl acetate | 141-78-6 | OELV - 8 hrs (TWA) | 200 ppm 734 mg/m ³ | IE OEL |
| | | OELV - 15 min (STEL) | 400 ppm 1.468 mg/m ³ | IE OEL |
| | | STEL | 400 ppm 1.468 mg/m ³ | 2017/164/EU |
| | | Further information: Indicative | | |
| | | TWA | 200 ppm 734 mg/m ³ | 2017/164/EU |
| | | Further information: Indicative | | |
| zinc oxide | 1314-13-2 | OELV - 8 hrs (TWA) (fume, respirable) | 2 mg/m ³ | IE OEL |

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| | | OELV - 15 min (STEL) (Fumes) | 10 mg/m ³ | IE OEL |
| dodecane-1-thiol | 112-55-0 | OELV - 8 hrs (TWA) | 0,1 ppm | IE OEL |
| Further information: Chemical agents which following exposure may cause sensitisation of the respiratory tract and lead to asthma, rhinitis or extrinsic allergic alveolitis | | | | |

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

| Substance name | End Use | Exposure routes | Potential health effects | Value |
|---|---------|-----------------|--------------------------|------------------------|
| toluene | Workers | Dermal | Systemic, long-term | 384 mg/kg |
| | Workers | Inhalation | Systemic, long-term | 192 mg/m ³ |
| | Workers | Inhalation | Systemic, short-term | 384 mg/m ³ |
| | Workers | Inhalation | Local, long-term | 192 mg/m ³ |
| | Workers | Inhalation | Local, short-term | 384 mg/m ³ |
| ethyl acetate | Workers | Eye contact | Local effects | |
| | Workers | Eye contact | Local effects | |
| Resin acids and Rosin acids, esters with glycerol | Workers | Inhalation | Systemic, short-term | 1468 mg/m ³ |
| | Workers | Inhalation | Systemic, long-term | 734 mg/m ³ |
| | Workers | Inhalation | Local, short-term | 1468 mg/m ³ |
| | Workers | Inhalation | Local, long-term | 734 mg/m ³ |
| | Workers | Dermal | Systemic, long-term | 63 mg/kg |
| Silicic acid, aluminum magnesium sodium salt | Workers | Inhalation | Local, long-term | 10 mg/m ³ |
| | Workers | Dermal | Systemic, long-term | 5 mg/kg |
| | Workers | Eye contact | Local effects | |
| Rosin | Workers | Inhalation | Systemic, long-term | 1,29 mg/m ³ |
| | Workers | Eye contact | Local effects | |
| zinc oxide | Workers | Dermal | Local effects | |
| | Workers | Dermal | Systemic, long-term | 2,131 mg/kg |
| | Workers | Dermal | Systemic, long-term | 83 mg/kg |
| | Workers | Inhalation | Local, long-term | 0,5 mg/m ³ |
| | Workers | Eye contact | Local effects | |
| | Workers | Inhalation | Systemic, long-term | 5 mg/m ³ |

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

| Substance name | Environmental Compartment | Value |
|----------------|---------------------------|-------------|
| toluene | Soil | 0,313 mg/kg |
| | Sewage treatment plant | 0,84 mg/l |
| | Marine sediment | 0,178 mg/kg |
| | Fresh water | 74 µg/l |
| | Marine water | 7,4 µg/l |
| | Fresh water sediment | 1,78 mg/kg |
| ethyl acetate | Soil | 0,148 mg/kg |
| | Predator | 0,2 g/kg |

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| | Fresh water sediment | 1,15 mg/kg |
| | Fresh water | 0,24 mg/l |
| | Sewage treatment plant | 650 mg/l |
| | Marine water | 0,024 mg/l |
| | Marine sediment | 0,115 mg/kg |
| Resin acids and Rosin acids, esters with glycerol | Soil | 462,06 mg/kg |
| | Fresh water sediment | 2317,75 mg/kg |
| | Marine sediment | 231,78 mg/kg |
| | Marine water | 0,01 mg/l |
| | Sewage treatment plant | 2,525 mg/l |
| | Fresh water | 0,1 mg/l |
| Silicic acid, aluminum magnesium sodium salt | Fresh water | 0,82 mg/l |
| | Marine water | 0,082 mg/l |
| Rosin | Soil | 0 mg/kg |
| | Fresh water | 0,002 mg/l |
| | Marine water | 0 mg/l |
| | Marine sediment | 0,001 mg/kg |
| | Fresh water sediment | 0,007 mg/kg |
| | Sewage treatment plant | 1000 mg/l |
| zinc oxide | Soil | 35,6 mg/kg |
| | Sewage treatment plant | 100 µg/l |
| | Fresh water | 20,6 µg/l |
| | Marine water | 6,1 µg/l |
| | Fresh water sediment | 117,8 mg/kg |
| | Marine sediment | 56,5 mg/kg |

8.2 Exposure controls
Engineering measures

Please take care on national and local requirements.

Personal protective equipment

Eye protection : Tightly fitting safety goggles

Hand protection

Remarks : The glove material has to be impermeable and resistant to the product/the substance/the preparation.
The exact break through time can be obtained from the protective glove producer and this has to be observed.
The gloves need to be disposed after the penetration time and replaced by new ones.
Apply skin protectant before working with gloves to avoid skin swellings and use a skin cleansing and skincare product after the work.

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For the permanent contact gloves made of the following materials are suitable:

If longer exposure to the chemical preparation is necessary, a sturdy overglove against mechanical strain is recommended in combination with the Barrier 02-100 underglove from Ansell or other suppliers (penetration time: 480 min).

For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:

Butyl rubber (minimum thickness: 0.7 mm; penetration time: 15 min)

As protection from splashes gloves made of the following materials are suitable:

Nitril (minimum thickness 0.12 mm), Disposable gloves with long cuffs

After contact with the chemical preparation, take the disposable nitrile glove off immediately and put on a new disposable nitrile glove.

| | | |
|--------------------------|---|---|
| Skin and body protection | : | Protective clothing |
| Respiratory protection | : | Use respiratory protection unless adequate risk management measures (exhaust/ ventilation) are provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. In case of brief exposure or low pollution (exceeding of TLV) use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air. Ensure that suitable extractors are available on processing machines. |
| Filter type | : | Organic vapour type (A) |
| Protective measures | : | Keep away from food, drink and animal feedingstuffs. Instantly remove any soiled and impregnated garments. Wash hands before breaks and immediately after handling the product. Avoid contact with the eyes and skin. Store protective clothing separately. |

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

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| Physical state | : | liquid |
| Colour | : | yellow |
| Odour | : | solvent-like |
| Odour Threshold | : | is not determined |
| Melting point/freezing point | : | is not determined |
| Boiling point/boiling range | : | 64 °C |
| Flash point | : | -20 °C |
| Auto-ignition temperature | : | is not determined |
| Decomposition temperature | : | Not applicable |
| pH | : | substance/mixture is non-polar/aprotic |
| Viscosity | | |
| Viscosity, dynamic | : | 3.000 mPa.s (20 °C) |
| Viscosity, kinematic | : | > 20,5 mm ² /s (40 °C) |
| Solubility(ies) | | |
| Water solubility | : | not miscible or difficult to mix |
| Partition coefficient: n-octanol/water | : | no data available |
| Vapour pressure | : | 100 hPa (20 °C) |
| Density | : | 0,8600 g/cm ³ |
| Relative vapour density | : | is not determined |

9.2 Other information

| | | |
|------------------|---|--|
| Explosives | : | Product is not explosive. However, formation of explosive vapour/air mixtures is possible. |
| Evaporation rate | : | is not determined |

SECTION 10: Stability and reactivity**10.1 Reactivity**

No further relevant information available.

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10.2 Chemical stability

No decomposition if used according to the specifications.

10.3 Possibility of hazardous reactions

Hazardous reactions : Develops readily flammable vapours/fumes.

10.4 Conditions to avoid

Conditions to avoid : No further relevant information available.

10.5 Incompatible materials

Materials to avoid : No further relevant information available.

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity**

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

Components:**toluene:**

Acute oral toxicity : LD50 Oral (Rat): 5.580 mg/kg

Acute inhalation toxicity : LC50 (Rat): 12,5 mg/l
Exposure time: 4 Hours**ethyl acetate:**

Acute oral toxicity : LD50 Oral (Rat): 5.620 mg/kg

Acute inhalation toxicity : LC50 (Rat): 22,5 mg/l
Exposure time: 4 Hours
Test atmosphere: Inhalation

Acute dermal toxicity : LD50 Dermal (Rabbit): > 20.000 mg/kg

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.

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Respiratory or skin sensitisation**Skin sensitisation**

May cause an allergic skin reaction.

Respiratory sensitisation

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

Germ cell mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

Suspected of damaging the unborn child.

STOT - single exposure

May cause drowsiness or dizziness.

STOT - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity

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

11.2 Information on other hazards**Endocrine disrupting properties****Product:**

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information**12.1 Toxicity****Components:****ethyl acetate:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 220 - 250 mg/l
Exposure time: 96 Hours
Test Type: flow-through test

Rosin:

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 3,8 - 5,4 mg/l

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aquatic invertebrates Exposure time: 48 Hours
Test Type: static test

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential**Components:****ethyl acetate:**

Partition coefficient: n- : log Pow: > 0,66 - < 0,73 (25 °C)
octanol/water pH: 7
GLP: no

Rosin:

Partition coefficient: n- : log Pow: > 3 - 6,2
octanol/water pH: 6
GLP: yes

dodecane-1-thiol:

Partition coefficient: n- : log Pow: 6,18
octanol/water

12.4 Mobility in soil**Product:**

Mobility : Medium: Soil
Remarks: Do not allow product to reach ground water, water
bodies or sewage system.

12.5 Results of PBT and vPvB assessment**Product:**

Assessment : This substance/mixture contains no components considered
to be either persistent, bioaccumulative and toxic (PBT), or
very persistent and very bioaccumulative (vPvB) at levels of
0.1% or higher.

12.6 Endocrine disrupting properties**Product:**

Assessment : The substance/mixture does not contain components consid-
ered to have endocrine disrupting properties according to
REACH Article 57(f) or Commission Delegated regulation
(EU) 2017/2100 or Commission Regulation (EU) 2018/605 at
levels of 0.1% or higher.

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12.7 Other adverse effects

No data available

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

Product : Do not dispose of with domestic refuse.
Do not dispose of waste into sewer.
Hand over to disposers of hazardous waste.
The generation of waste should be avoided or minimized wherever possible.
Incinerate under controlled conditions in accordance with all local and national laws and regulations.
Disposal must be made according to official regulations.

These EU waste code numbers are recommendations for waste accruing through the use of adhesives and sealants. Any waste produced from organic solvents or other dangerous substances (according GHS) listed under section 3 of this safety datasheet is itself classified as dangerous (*).

Waste accruing during application:

08 04 09* waste adhesives and sealants containing organic solvents or other dangerous substances
08 04 10 waste adhesives and sealants other than those mentioned in 08 04 09

Waste accruing during cleaning:

08 04 11* adhesive and sealant sludges containing organic solvents or other dangerous substances
08 04 12 adhesive and sealant sludges other than those mentioned in 08 04 11

Waste packaging:

15 01 01 paper and cardboard packaging
15 01 02 plastic packaging
15 01 04 metallic packaging
15 01 10* packaging containing residues of or contaminated by dangerous substances.

Contaminated packaging : Disposal must be made according to official regulations.

SECTION 14: Transport information**14.1 UN number or ID number**

ADR : UN 1133
RID : UN 1133

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IMDG : UN 1133**IATA** : UN 1133**14.2 UN proper shipping name****ADR** : ADHESIVES**RID** : ADHESIVES**IMDG** : ADHESIVES
(Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics, Zinc oxide)**IATA** : Adhesives**14.3 Transport hazard class(es)****ADR** : 3**RID** : 3**IMDG** : 3**IATA** : 3**14.4 Packing group****ADR**

Packing group : II
Classification Code : F1
Hazard Identification Number : 33
Labels : 3
Tunnel restriction code : (D/E)
Remarks : This product is eligible to ship using the Limited Quantity exception when packed in inner packaging under 5 L and outer packaging up to 30 kg.

RID

Packing group : II
Classification Code : F1
Hazard Identification Number : 33
Labels : 3

IMDG

Packing group : II
Labels : 3
EmS Code : F-E, S-D

IATA (Cargo)

Packing instruction (cargo aircraft) : 364
Packing instruction (LQ) : Y341
Packing group : II
Labels : Flammable Liquids

IATA_P (Passenger)

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Packing instruction (passenger aircraft) : 353
Packing instruction (LQ) : Y341
Packing group : II
Labels : Flammable Liquids

14.5 Environmental hazards**ADR**

Environmentally hazardous : yes

RID

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Conditions of restriction for the following entries should be considered:
Number on list 3

REACH - Candidate List of Substances of Very High Concern for Authorisation (SVHC, Article 59) : Not applicable
formaldehyde (Number on list 72, 28)xylenes

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) : Not applicable

RoHS: 2011/65/EU, Restriction of Hazardous Substances : Not applicable

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Council Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors : Neither banned nor restricted

Council Regulation (EC) No 273/2004 on drug precursors : Not applicable

Regulation (EU) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. P5c FLAMMABLE LIQUIDS

E2 ENVIRONMENTAL HAZARDS

Minimum Qualifying Quantity of Lower Tier Requirement :200 t

Maximum Qualifying Quantity of Higher Tier Requirement :500 t

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Volatile organic compounds (VOC) content: 76,35 %

Other regulations:

Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

The components of this product are reported in the following inventories:

TSCA : All substances listed as active on the TSCA inventory

AIIC : On the inventory, or in compliance with the inventory

DSL : All components of this product are on the Canadian DSL

REACH : On the inventory, or in compliance with the inventory

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15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this mixture.

SECTION 16: Other information

Full text of H-Statements

| | |
|--------|---|
| H225 | : Highly flammable liquid and vapour. |
| H304 | : May be fatal if swallowed and enters airways. |
| H314 | : Causes severe skin burns and eye damage. |
| H315 | : Causes skin irritation. |
| H317 | : May cause an allergic skin reaction. |
| H318 | : Causes serious eye damage. |
| H319 | : Causes serious eye irritation. |
| H336 | : May cause drowsiness or dizziness. |
| H360F | : May damage fertility. |
| H361d | : Suspected of damaging the unborn child. |
| H373 | : May cause damage to organs through prolonged or repeated exposure. |
| H373 | : May cause damage to organs through prolonged or repeated exposure if inhaled. |
| H400 | : Very toxic to aquatic life. |
| H410 | : Very toxic to aquatic life with long lasting effects. |
| H411 | : Toxic to aquatic life with long lasting effects. |
| H412 | : Harmful to aquatic life with long lasting effects. |
| EUH066 | : Repeated exposure may cause skin dryness or cracking. |

Full text of other abbreviations

| | |
|--------------------|---|
| Aquatic Acute | : Short-term (acute) aquatic hazard |
| Aquatic Chronic | : Long-term (chronic) aquatic hazard |
| Asp. Tox. | : Aspiration hazard |
| Eye Dam. | : Serious eye damage |
| Eye Irrit. | : Eye irritation |
| Flam. Liq. | : Flammable liquids |
| Repr. | : Reproductive toxicity |
| Skin Corr. | : Skin corrosion |
| Skin Irrit. | : Skin irritation |
| Skin Sens. | : Skin sensitisation |
| STOT RE | : Specific target organ toxicity - repeated exposure |
| STOT SE | : Specific target organ toxicity - single exposure |
| 2006/15/EC | : Europe. Indicative occupational exposure limit values |
| 2017/164/EU | : Europe. Commission Directive 2017/164/EU establishing a fourth list of indicative occupational exposure limit values |
| IE OEL | : Ireland. List of Chemical Agents and Carcinogens with Occupational Exposure Limit Values - Code of Practice, Schedule 1 and 2 |
| 2006/15/EC / TWA | : Limit Value - eight hours |
| 2006/15/EC / STEL | : Short term exposure limit |
| 2017/164/EU / STEL | : Short term exposure limit |
| 2017/164/EU / TWA | : Limit Value - eight hours |

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IE OEL / OELV - 8 hrs (TWA) : Occupational exposure limit value (8-hour reference period)
IE OEL / OELV - 15 min : Occupational exposure limit value (15-minute reference period)
(STEL) (STEL)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECl - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Other information : This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

Modified data compared to the previous version

The following sections have been updated:

- Section 2
- Section 3
- Section 8
- Section 11
- Section 12
- Section 14

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- Section 15
- Section 16

Contact Point : Prepared by: Global Regulatory Department
EU-MSDS@hbfuller.com

Classification of the mixture:

| | |
|-------------------|-------|
| Flam. Liq. 2 | H225 |
| Skin Irrit. 2 | H315 |
| Eye Irrit. 2 | H319 |
| Skin Sens. 1 | H317 |
| Repr. 2 | H361d |
| STOT SE 3 | H336 |
| STOT RE 2 | H373 |
| Aquatic Chronic 2 | H411 |

Classification procedure:

| |
|-------------------------------------|
| Based on product data or assessment |
| Calculation method |
| Calculation method |
| Calculation method |
| Calculation method |
| Calculation method |
| Calculation method |
| Calculation method |

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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