

**Safety Data Sheet**

according to UK REACH Regulation

TIP TOP LINING 74 RESIN

Revision date: 23.06.2023

Product code: 00359-1074

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Hazard statements

| | |
|-------|---|
| H226 | Flammable liquid and vapour. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H361d | Suspected of damaging the unborn child. |
| H372 | Causes damage to organs through prolonged or repeated exposure. |
| H412 | Harmful to aquatic life with long lasting effects. |

Precautionary statements

| | |
|----------------|--|
| P202 | Do not handle until all safety precautions have been read and understood. |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P260 | Do not breathe vapour. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P405 | Store locked up. |
| P273 | Avoid release to the environment. |

Special labelling of certain mixtures

| | |
|--------|---|
| EUH208 | Contains Neodecanoic acid, cobalt salt. May produce an allergic reaction. |
|--------|---|

2.3. Other hazards

According to Regulation (EC) No 1907/2006 (REACH) none of the substances, contained in this product are a PBT / vPvB substance.

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

Vapours may form explosive mixture with air.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Chemical characterization**

Epoxide-vinyl ester-resin in styrene

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Hazardous components

| CAS No | Chemical name | | | Quantity |
|------------|---|--------------|------------------|----------|
| | EC No | Index No | REACH No | |
| | GHS Classification | | | |
| 100-42-5 | Styrene | | | < 45 % |
| | 202-851-5 | 601-026-00-0 | 01-2119457861-32 | |
| | Flam. Liq. 3, Repr. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, STOT RE 1, Asp. Tox. 1, Aquatic Chronic 3; H226 H361d H332 H315 H319 H335 H372 H304 H412 | | | |
| 79-41-4 | Methacrylic acid | | | < 2,5 % |
| | 201-204-4 | 607-088-00-5 | 01-2119463884-26 | |
| | Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Skin Corr. 1A, STOT SE 3; H332 H312 H302 H314 H335 | | | |
| 75-57-0 | Tetramethylammonium chloride | | | < 0,5 % |
| | 200-880-8 | | 01-2119970924-26 | |
| | Acute Tox. 2, Acute Tox. 3, Skin Irrit. 2, STOT SE 1, Aquatic Chronic 2; H300 H311 H315 H370 H411 | | | |
| 27253-31-2 | Neodecanoic acid, cobalt salt | | | < 0,3 % |
| | 248-373-0 | 607-230-00-6 | 01-2119970733-31 | |
| | Repr. 1B, Acute Tox. 4, Skin Sens. 1, Aquatic Chronic 3; H360D H302 H317 H412 | | | |

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

Specific Conc. Limits, M-factors and ATE

| CAS No | EC No | Chemical name | Quantity |
|------------|---|-------------------------------|----------|
| | Specific Conc. Limits, M-factors and ATE | | |
| 100-42-5 | 202-851-5 | Styrene | < 45 % |
| | inhalation: LC50 = 12 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); oral: LD50 = 2650 mg/kg | | |
| 79-41-4 | 201-204-4 | Methacrylic acid | < 2,5 % |
| | inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: ATE = 1100 mg/kg; oral: ATE = 500 mg/kg STOT SE 3; H335: >= 1 - 100 | | |
| 75-57-0 | 200-880-8 | Tetramethylammonium chloride | < 0,5 % |
| | dermal: LD50 = 200 - 500 mg/kg; oral: LD50 = 50 mg/kg | | |
| 27253-31-2 | 248-373-0 | Neodecanoic acid, cobalt salt | < 0,3 % |
| | dermal: LD50 = > 2000 mg/kg; oral: LD50 = 3000 mg/kg | | |

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

- Remove contaminated soaked clothing immediately.
- In the event of persistent symptoms receive medical treatment.
- Take away from danger area and lay down affected person.

After inhalation

- Move to fresh air in case of accidental inhalation of vapours.
- Seek medical treatment immediately.

After contact with skin

- Wash off immediately with soap and plenty of water.
- Treat subsequently with skin cream.
- Consult a doctor if skin irritation persists.



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After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Consult (eye) doctor immediately.

After ingestion

Do not induce vomiting.
Summon a doctor immediately.
Rinse out mouth and give plenty of water to drink.
Never give anything by mouth to an unconscious person.
Induce vomiting only upon the advice of a physician.

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

Harmful by inhalation.
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
Causes damage to organs through prolonged or repeated exposure. (the ear)
Suspected of damaging the unborn child.
Attention. Beware, danger of aspiration.
Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

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

Treat symptoms.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Alcohol-resistant foam, dry chemical, carbon dioxide (CO₂), water-spray.

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Fire may produce:
carbon monoxide and carbon dioxide
Irritant/corrosive, flammable as well as toxic distillation gases (carbonization gases).

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit.

Additional information

Vapours are heavier than air and spread along ground.
The vapour/air mixture is explosive, even in empty, uncleaned receptacles.
Cool containers at risk with water spray jet.
Collect contaminated firefighting water separately, must not be discharged into the drains.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

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

Ensure adequate ventilation.
Remove persons to safety.
Keep away sources of ignition.

For non-emergency personnel

Do not breathe vapours.
Avoid contact with skin, eyes and clothing.



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For emergency responders

In case of vapour formation use respirator.
Use personal protective clothing.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/ground water.

6.3. Methods and material for containment and cleaning up

For containment

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

For cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).
Shovel into suitable container for disposal.

6.4. Reference to other sections

Observe protective instructions (see Sections 7 and 8).
Information for disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Keep container tightly closed.
Vapours are heavier than air and spread along ground.
Use only in thoroughly ventilated areas.
Provide suitable extraction at the processing machines.

Advice on protection against fire and explosion

Keep away from heat and sources of ignition.
Do not smoke.
Take precautionary measures against static discharges.
Use only explosion-proof equipment.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a dry, cool and well-ventilated place.
Pay attention to anti-explosion rules.
Avoid temperatures above 50°C.

Hints on joint storage

Incompatible with:
Oxidizing agents, Metal halogenides, Peroxides

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

Laminate coat

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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Exposure limits (EH40)

| CAS No | Substance | ppm | mg/m ³ | fibres/ml | Category | Origin |
|----------|------------------|-----|-------------------|-----------|---------------|--------|
| 79-41-4 | Methacrylic acid | 20 | 72 | | TWA (8 h) | WEL |
| | | 40 | 143 | | STEL (15 min) | WEL |
| 100-42-5 | Styrene | 100 | 430 | | TWA (8 h) | WEL |
| | | 250 | 1080 | | STEL (15 min) | WEL |

8.2. Exposure controls**Appropriate engineering controls**

- Ensure adequate ventilation, especially in confined areas.
- Pay attention to explosion protection guidelines.

Protective and hygiene measures

- Do not inhale vapours.
- Wash hands before breaks and immediately after handling the product.
- When using do not eat, drink or smoke.
- Treat subsequently with skin cream.
- Remove and wash contaminated clothes before re-use.

Eye/face protection

- Tightly fitting goggles (EN 166).
- Eye wash bottle with pure water (EN 15154).

Hand protection

- Chemical protective gloves made of nitrile, nitrile/cotton, butyl or neoprene, with a minimum thickness of 0.7 mm, permeation time of approx. 480 minutes.
- This recommendation refers exclusively to the chemical compatibility and the lab test conforming to EN 374 carried out under lab conditions.
- Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves.
- Pls. find examples in the protective gloves database under: <http://bestglove.com/site/chemrest/>

Skin protection

- Long sleeved clothing (DIN EN ISO 6530)
- Solvent-resistant apron (EN 467).

Respiratory protection

- In case of insufficient ventilation wear suitable respiratory equipment (gas filter type A) (EN 14387).

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

| | |
|-----------------|---------|
| Physical state: | Liquid |
| Colour: | Various |
| Odour: | Pungent |

Test method

| | |
|-----------|------|
| pH-Value: | n.d. |
|-----------|------|

Changes in the physical state

| | |
|---|--------|
| Melting point/freezing point: | n.d. |
| Boiling point or initial boiling point and boiling range: | 145 °C |
| Sublimation point: | n.a. |
| Softening point: | n.d. |

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Flash point: 29,4 °C

Flammability

Solid/liquid: n.a.

Explosive properties

The product is considered non-explosive; nevertheless explosive vapour/air mixture can be generated.

Lower explosion limits: 0 vol. %

Upper explosion limits: 6 vol. %

Auto-ignition temperature: 490 °C

Self-ignition temperature

Solid: n.a.

Gas: n.a.

Decomposition temperature: n.d.

Oxidizing properties

Not oxidising.

Vapour pressure: 8,53 hPa Calculated
(at 20 °C)

Vapour pressure: ASTM D 323

Density: 1,078 g/cm³

Bulk density: n.a.

Water solubility: Immiscible
(at 20 °C)**Solubility in other solvents**

n.d.

Partition coefficient n-octanol/water: n.d.

Viscosity / dynamic: n.d.

Viscosity / kinematic: > 20,5 mm²/s
(at 40 °C)

Flow time: n.d.

Relative vapour density: n.d.

Evaporation rate: n.d.

Solvent separation test: n.d.

Solvent content: < 5 %

9.2. Other information

No data available

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

No decomposition if stored and applied as directed.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reactions with oxidizing agents.

Reactions with peroxides.

10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat.

Vapour/air mixtures are explosive at intensive warming.



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Heating can release vapours which can be ignited.
Avoid temperatures above 50°C.
If heating up polymerisation.

10.5. Incompatible materials

Oxidizing agents, Metal halogenides, Peroxides

10.6. Hazardous decomposition products

No hazardous decomposition products known.
Fire may produce:
Irritant/corrosive, flammable as well as toxic distillation gases (carbonization gases).
Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

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

Acute toxicity

Harmful if inhaled.
No toxicological data available.
Styrene
LD50/oral/rat: 5000 mg/kg
LD50/dermal/rat: > 2000 mg/kg
LC50/inhalation/rat: 11,8 mg/l/4h

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) 3,260 mg/l

Irritation and corrosivity

Causes skin irritation.
Causes serious eye irritation.

Sensitising effects

Contains Neodecanoic acid, cobalt salt. May produce an allergic reaction.

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of damaging the unborn child. (Styrene)
Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.

STOT-single exposure

May cause respiratory irritation. (Styrene; Methacrylic acid)

STOT-repeated exposure

Causes damage to organs through prolonged or repeated exposure. (Styrene)

Aspiration hazard

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

Additional information on tests

Classification in compliance with the assessment procedure specified in the Regulation (EC) no 1272/2008.

11.2. Information on other hazards

Endocrine disrupting properties

No data available

Other information

Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

SECTION 12: Ecological information

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12.1. Toxicity

Ecological data are not available.
Harmful to aquatic life with long lasting effects.
Styrene
LC50/Pimephales promelas/96 h = 4,02 mg/kg
EC50/Daphnia magna/48 h = 4,7 mg/kg
EC50/Pseudokirchneriella subcapitata/72 h > 4,9 mg/kg

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

Hazardous water pollutant.
Product is toxic to fish and their nutrient animals.

Further information

Do not flush into surface water or sanitary sewer system.

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

Can be incinerated, when in compliance with local regulations.
Where possible recycling is preferred to disposal.

List of Wastes Code - residues/unused products

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other hazardous substances; hazardous waste

Contaminated packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.
Packaging that cannot be cleaned should be disposed of like the product.

SECTION 14: Transport information**Land transport (ADR/RID)**

| | |
|---|----------------|
| <u>14.1. UN number:</u> | UN 1866 |
| <u>14.2. UN proper shipping name:</u> | Resin solution |
| <u>14.3. Transport hazard class(es):</u> | 3 |
| <u>14.4. Packing group:</u> | III |
| Hazard label: | 3 |

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

Inland waterways transport (ADN)

| | |
|--|----------------|
| 14.1. UN number: | UN 1866 |
| 14.2. UN proper shipping name: | Resin solution |
| 14.3. Transport hazard class(es): | 3 |
| 14.4. Packing group: | III |
| Hazard label: | 3 |



| | |
|----------------------|-------------|
| Classification code: | F1 |
| Limited quantity: | 5 L / 30 kg |
| Excepted quantity: | E1 |

Marine transport (IMDG)

| | |
|--|----------------|
| 14.1. UN number: | UN 1866 |
| 14.2. UN proper shipping name: | Resin solution |
| 14.3. Transport hazard class(es): | 3 |
| 14.4. Packing group: | III |
| Hazard label: | 3 |



| | |
|--------------------|-------------|
| Marine pollutant: | No |
| Limited quantity: | 5 L / 30 kg |
| Excepted quantity: | E1 |
| EmS: | F-E, S-E |

Air transport (ICAO-TI/IATA-DGR)

| | |
|--|----------------|
| 14.1. UN number: | UN 1866 |
| 14.2. UN proper shipping name: | Resin solution |
| 14.3. Transport hazard class(es): | 3 |
| 14.4. Packing group: | III |
| Hazard label: | 3 |



| | | |
|--|------|------|
| Limited quantity Passenger: | 10 L | |
| Passenger LQ: | Y344 | |
| Excepted quantity: | E1 | |
| IATA-packing instructions - Passenger: | | 355 |
| IATA-max. quantity - Passenger: | | 60 L |

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IATA-packing instructions - Cargo: 366
IATA-max. quantity - Cargo: 220 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Handle in accordance with good industrial hygiene and safety practice.

14.7. Maritime transport in bulk according to IMO instruments

The transport takes place only in approved and appropriate packaging.

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

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

2004/42/EC (VOC): < 5 %; < 90 g/l
Information according to 2012/18/EU (SEVESO III): P5c FLAMMABLE LIQUIDS

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

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

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information**Changes**

This data sheet contains changes from the previous version in section(s): 2,6,7,10,11,12.

Abbreviations and acronyms

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
IMDG = International Maritime Code for Dangerous Goods
IATA/ICAO = International Air Transport Association / International Civil Aviation Organization
MARPOL = International Convention for the Prevention of Pollution from Ships
IBC-Code = International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk

GHS = Globally Harmonized System of Classification and Labelling of Chemicals
REACH = Registration, Evaluation, Authorization and Restriction of Chemicals
CAS = Chemical Abstract Service
EN = European norm
ISO = International Organization for Standardization
DIN = Deutsche Industrie Norm
PBT = Persistent Bioaccumulative and Toxic
vPvB = Very Persistent and very Bio-accumulative

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LD = Lethal dose
LC = Lethal concentration
EC = Effect concentration
IC = Median immobilisation concentration or median inhibitory concentration

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

| Classification | Classification procedure |
|-------------------------|--------------------------|
| Flam. Liq. 3; H226 | On basis of test data |
| Acute Tox. 4; H332 | Calculation method |
| Skin Irrit. 2; H315 | Calculation method |
| Eye Irrit. 2; H319 | Calculation method |
| Repr. 2; H361d | Calculation method |
| STOT SE 3; H335 | Calculation method |
| STOT RE 1; H372 | Calculation method |
| Aquatic Chronic 3; H412 | Calculation method |

Relevant H and EUH statements (number and full text)

H226 Flammable liquid and vapour.
H300 Fatal if swallowed.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H311 Toxic in contact with skin.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H360D May damage the unborn child.
H361d Suspected of damaging the unborn child.
H370 Causes damage to organs.
H372 Causes damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
EUH208 Contains Neodecanoic acid, cobalt salt. May produce an allergic reaction.

Further Information

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge.

The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

(n.a. = not applicable; n.d. = not determined)

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)