

according to Regulation (EC) No 1907/2006

TIP TOP SOLUTION HL-TNL4

Revision date: 26.07.2017

Product code: 00156-0444

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

1.1. Product identifier

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Art.-No.

538 1135

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

Use of the substance/mixture

adhesive

1.3. Details of the supplier of the safety data sheet

| Company name: | REMA TIP TOP AG |
|--|--|
| Street: | Gruber Strasse 65 |
| Place: | D-85586 Poing |
| Telephone: | +49 (0) 8121 / 707 - 100 |
| Responsible Department: | Responsible for the safety data sheet: sds@gbk-ingelheim.de |
| <u>1.4. Emergency telephone</u> number: | INTERNATIONAL: +49 - (0) 6132 - 84463, GBK GmbH (24h - 7d/w - 365d/a) England and Wales: NHS Direct - 0845 4647; Scotland: NHS 24 - 08454 24 24 24 |

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories: Flammable liquid: Flam. Liq. 2 Skin corrosion/irritation: Skin Irrit. 2 Specific target organ toxicity - single exposure: STOT SE 3 Hazardous to the aquatic environment: Aquatic Chronic 2 Hazard Statements: Highly flammable liquid and vapour. Causes skin irritation. May cause drowsiness or dizziness. Toxic to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

Naphtha (petroleum)

Signal word:

Pictograms:

Danger



Hazard statements

| H225 | Highly flammable liquid and vapour. |
|------|--|
| H315 | Causes skin irritation. |
| H336 | May cause drowsiness or dizziness. |
| H411 | Toxic to aquatic life with long lasting effects. |

Precautionary statements

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



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|---------------------------|---|--------------|
| P260 | Do not breathe vapour. | |
| P262 | Do not get in eyes, on skin, or on clothing. | |
| 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/shower. | |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. | |
| P312 | Call a POISON CENTER/doctor if you feel unwell. | |
| P273 | Avoid release to the environment. | |
| Special labelling of cert | ain mixtures | |
| EUH208 | Contains Colophonium, 1,3-Dihydroxybenzene, Methenamine, N-phenyl-1-naphthylamine N-(1,3-Dimethylbutyl)-N'-phenyl-p-phenylenediamine. 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.

Vapours may form explosive mixture with air.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Preparation solved in petroleum spirit



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Hazardous components

| CAS No | Chemical name | | | Quantity |
|------------|---|--|---|----------|
| | EC No | Index No | REACH No | |
| | Classification according to R | egulation (EC) No. 1272/2008 [| [CLP] | |
| 64742-49-0 | Naphtha (petroleum) [Hydro n-hexane] | carbons, C6-C7, n-alkanes, iso- | alkanes, cyclic compounds, < 3% | < 60 % |
| | 921-024-6 | | 01-2119475514-35 | |
| | Flam. Liq. 2, Skin Irrit. 2, ST H411 | OT SE 3, Asp. Tox. 1, Aquatic C | Chronic 2; H225 H315 H336 H304 | |
| 64742-49-0 | Naphtha (petroleum) [Hydro | carbons, C6, isoalkanes, < 3% i | n-hexane] | < 20 % |
| | 931-254-9 | | 01-2119484651-34 | |
| | Flam. Liq. 2, Skin Irrit. 2, ST H411 | OT SE 3, Asp. Tox. 1, Aquatic C | Chronic 2; H225 H315 H336 H304 | |
| 1314-13-2 | Zinc oxide | | | < 2,5 % |
| | 215-222-5 | 030-013-00-7 | 01-2119463881-32 | |
| | Aquatic Acute 1, Aquatic Ch | ronic 1; H400 H410 | | |
| 8050-09-7 | Colophonium | | | < 1 % |
| | 232-475-7 | 650-015-00-7 | 01-2119480418-32 | |
| | Skin Sens. 1; H317 | | | |
| 108-46-3 | 1,3-Dihydroxybenzene | | | < 1 % |
| | 203-585-2 | 604-010-00-1 | 01-2119480136-40 | |
| | | e Dam. 1, Skin Sens. 1, STOT 15 H318 H317 H370 H371 H40 | SE 1, STOT SE 2, Aquatic Acute 1, 0 H412 | |
| 100-97-0 | Methenamine | | | < 1 % |
| | 202-905-8 | 612-101-00-2 | 01-2119474895-20 | |
| | Flam. Sol. 2, Skin Sens. 1; H | I228 H317 | · | |
| 90-30-2 | N-phenyl-1-naphthylamine | | | < 1 % |
| | 201-983-0 | | 01-2119488704-27 | |
| | Acute Tox. 4, Skin Sens. 1, / | Aquatic Acute 1, Aquatic Chroni | c 1; H302 H317 H400 H410 | |
| 793-24-8 | N-(1,3-Dimethylbutyl)-N'-phe | enyl-p-phenylenediamine | | < 1 % |
| | 212-344-0 | | 01-2119485839-15 | |
| | Acute Tox. 4, Skin Sens. 1, | Aquatic Acute 1, Aquatic Chroni | c 1; H302 H317 H400 H410 | |

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

Further Information

According to note P to the regulation (EC) no. 1272/2008, "Naphta (petroleum)" is not to be classified as "carcinogenic" or "mutagen" ingredient because a benzene content (EINECS No. 200-753-7) is below 0.1 % by weight.

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.



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After contact with skin

Wash off with soap and plenty of water. Consult a doctor if skin irritation persists.

After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Summon a doctor immediately.

After ingestion

Do not induce vomiting. Rinse out mouth and give plenty of water to drink. Never give anything by mouth to an unconscious person. Summon a doctor immediately. The decision whether to induce vomiting or not is to be taken by a physician.

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

May cause drowsiness or dizziness. Causes skin irritation. Attention. Beware, danger of aspiration.

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

Foam, carbon dioxide (CO2), dry chemical, water-spray.

Unsuitable extinguishing media

Full water jet.

5.2. Special hazards arising from the substance or mixture

Fire may produce:

carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx)

5.3. Advice for firefighters

Use breathing apparatus with independent air supply. Protective suit.

Additional information

Cool containers at risk with water spray jet.

The vapour/air mixture is explosive, even in empty, uncleaned receptacles. Vapours are heavier than air and spread along ground. 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

In case of vapour formation use respirator. Ensure adequate ventilation. Remove persons to safety. Use personal protective clothing. Keep away sources of ignition. Avoid contact with skin, eves and clothing.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).



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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. Use only in thoroughly ventilated areas. Vapours are heavier than air and spread along ground.

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 protection rules.

Advice on storage compatibility

Incompatible with oxidizing agents.

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

| CAS No | Substance | ppm | mg/m³ | fibres/ml | Category | Origin |
|-----------|------------------------------|-----|-------|-----------|---------------|--------|
| 1333-86-4 | Carbon black | - | 3.5 | | TWA (8 h) | WEL |
| | | - | 7 | | STEL (15 min) | WEL |
| 108-46-3 | Resorcinol | 10 | 46 | | TWA (8 h) | WEL |
| | | 20 | 92 | | STEL (15 min) | WEL |
| 8050-09-7 | Rosin-based solder flux fume | - | 0.05 | | TWA (8 h) | WEL |
| | | - | 0.15 | | STEL (15 min) | WEL |

8.2. Exposure controls

Appropriate engineering controls

Pay attention to anti-explosion protection rules.

Ensure adequate ventilation, especially in confined areas.

Protective and hygiene measures

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 clothing before re-use.



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Eye/face protection

Tightly fitting goggles (EN 166).

Hand protection

Protective gloves resistant to chemicals made of nitrile, minimum coat thickness 0.4 mm, permeation resistance (wear duration) approx. 480 minutes, i.e. protective glove < Camatril Velours 730> made by www.kcl.de.

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.

Skin protection

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: | Black | |
| Odour: | Hydrocarbon-like | |
| | | Test method |
| Changes in the physical state | | |
| Melting point: | < - 50 °C | |
| Initial boiling point and boiling range: | 60 - 95 °C | *) |
| Flash point: | - 25 °C | *) |
| Lower explosion limits: | 0,6 vol. % | *) |
| Upper explosion limits: | 8,3 vol. % | *) |
| Ignition temperature: | n.d. | |
| Vapour pressure: (at 20 °C) | 100 - 200 hPa | *) |
| Density: | < 1 g/cm³ | |
| Water solubility: (at 20 °C) | Immiscible | |
| Viscosity / dynamic: | < 1200 mPa·s | |
| Viscosity / kinematic: (at 40 °C) | > 20,5 mm²/s | |
| Solvent content: | < 80 % | |
| 9.2. Other information | | |
| *) Naphtha (petroleum) | | |

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



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Reactions with oxidizing agents.

10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat. Heating can release vapours which can be ignited. Vapour/air-mixtures are explosive at intense warming.

10.5. Incompatible materials

oxidizing agents

10.6. Hazardous decomposition products

Carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx)

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Based on available data, the classification criteria are not met. No toxicological data available. Naphtha (petroleum) LD50/oral/rat: > 2000 mg/kg LD50/dermal/rabbit: > 2000 mg/kg LC50/inhalation: > 20 mg/l/4h

Irritation and corrosivity

Causes skin irritation.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

May cause drowsiness or dizziness. (Naphtha (petroleum) [Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclic compounds, < 3% n-hexane])

STOT-repeated exposure

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

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.

Practical experience

Other observations

Contact with eyes may cause irritation.

Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

A longer or repeated contact my lead to irritation of eyes and mucous membranes.

Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

Lead has cumulative properties, wherefore lead compounds can be health-damaging in the event of long-term or frequent exposure. Following symptoms are resulting from chronic lead uptake: fatigue, headaches, constipation and colic.

May cause sensitization of susceptible persons by skin contact.

SECTION 12: Ecological information

12.1. Toxicity



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Ecological data are not available. Naphtha (petroleum) LC50/fish: 1 - 10 mg/l EC50/Daphnia: 1 - 10 mg/l EC50/Algae: 10 - 100 mg/l NOEC/Fish: 1 - 10 mg/l NOEC/Daphnia: 1 - 10 mg/l Toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

Naphtha (petroleum) Readily biodegradable.

12.3. Bioaccumulative potential

Naphtha (petroleum)

A bioaccumulation potential is to be expected.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

Low hazard to waters.

Further information

Do not flush into surface water or sanitary sewer system.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

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

Waste disposal number of waste from 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

Empty containers should be taken for local recycling, recovery or waste disposal.

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)

| 14.1. UN number: | UN 1133 |
|-----------------------------------|-----------|
| 14.2. UN proper shipping name: | Adhesives |
| 14.3. Transport hazard class(es): | 3 |
| 14.4. Packing group: | II |
| Hazard label: | 3 |



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|--|---------------------------------|----|
| | | |
| | 3 | |
| Classification code: | F1 | |
| Limited quantity: | 5 L / 30 kg | |
| Excepted quantity: | E2 | |
| Transport category: | 2 | |
| Hazard No: | 33 | |
| Tunnel restriction code: | D/E | |
| Inland waterways transport (ADN) | | |
| <u>14.1. UN number:</u> | UN 1133 | |
| 14.2. UN proper shipping name: | Adhesives | |
| 14.3. Transport hazard class(es): | 3 | |
| 14.4. Packing group: | II | |
| Hazard label: | 3 | |
| | | |
| | | |
| | 3 | |
| Classification code: | F1 | |
| Limited quantity: | 5 L / 30 kg | |
| Excepted quantity: | E2 | |
| Marine transport (IMDG) | | |
| <u>14.1. UN number:</u> | UN 1133 | |
| 14.2. UN proper shipping name: | Adhesives (Naphtha (petroleum)) | |
| 14.3. Transport hazard class(es): | 3 | |
| 14.4. Packing group: | II | |
| Hazard label: | 3 | |
| | | |
| | | |
| | 3 | |
| Marine pollutant: | Yes | |
| Limited quantity: | 5 L / 30 kg | |
| Excepted quantity: | E2 | |
| EmS: | F-E, S-D | |
| Air transport (ICAO-TI/IATA-DGR) | | |
| <u>14.1. UN number:</u> | UN 1133 | |
| 14.2. UN proper shipping name: | Adhesives | |
| 14.3. Transport hazard class(es): | 3 | |
| 14.4. Packing group: | и П | |
| Hazard label: | 3 | |
| | | |
| | | |
| | | |
| Limited quantity Passanger | | |
| Limited quantity Passenger: Passenger LQ: | 1 L Y341 | |
| Excepted quantity: | E2 | |
| IATA-packing instructions - Passenger: | 353 | |
| a and packing manualions - 1 assenger. | 000 | |
| | | |

3%



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| IATA-max. quantity - Passenger: | 5 L | |
| IATA-packing instructions - Cargo: | 364 | |
| IATA-max. quantity - Cargo: | 60 L | |
| 14.5. Environmental hazards | | |
| ENVIRONMENTALLY HAZARDOUS: | yes | ¥ |

14.6. Special precautions for user

Handle in accordance with good industrial hygiene and safety practice.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

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 28: Naphtha (petroleum) [| Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclic compounds, < 3 |
| n-hexane]; Naphtha (petroleum) | [Hydrocarbons, C6, isoalkanes, < 3% n-hexane] |
| 2004/42/EC (VOC): | < 80 % |
| National regulatory information | |
| Employment restrictions | Observe restrictions to employment for juvenils according to |

Observe restrictions to employment for juvenils according to the 'juvenile Employment restrictions: work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions for women of child-bearing age. Water contaminating class (D): 1 - slightly water contaminating

15.2. Chemical safety assessment

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

SECTION 16: Other information

Changes

Changes in chapter: 3, 15, 16.

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



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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

LD = Lethal dose

LC = Lethal concentration

EC = Effect concentration

IC = Median immobilisation concentration or median inhibitory concentration

Relevant H and EUH statements (number and full text)

| H225 | Highly flammable liquid and vapour. |
|--------|---|
| H228 | Flammable solid. |
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H336 | May cause drowsiness or dizziness. |
| H370 | Causes damage to organs (CNS, Blood) if swallowed. |
| H371 | May cause damage to organs (the respiratory system) if swallowed. |
| 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. |
| EUH208 | Contains Colophonium, 1,3-Dihydroxybenzene, Methenamine, N-phenyl-1-naphthylamine, |
| | N-(1,3-Dimethylbutyl)-N'-phenyl-p-phenylenediamine. 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.)