1. Identification

Product identifier

TIP TOP SOLUTION HL-TNL4

Art.-No.

538 1135, 538 1143, 538 1157, 538 1162

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

Use of the substance/mixture

Adhesive

Details of the supplier of the safety data sheet

Manufacturer

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

Supplier

Company name:	REMA TIP TOP / North America Inc.
Street:	1500 Industrial Blvd
Place:	Madison, GA 30650, USA
Telephone:	+1 800 225 7362,
Internet:	www.rematiptop.com

Emergency telephone number: INTERNATIONAL: +49 - (0) 6132 - 84463, GBK GmbH (24h - 7d/w - 365d/a)
(001) 352 323 3500 Infotrac/GBK GmbH-ID: 93591

2. Hazard identification

Classification of the substance or mixture

WHMIS 2015

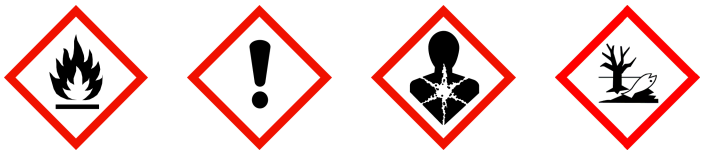
Flammable liquids: Flam. Liq. 2
Reproductive toxicity: Repr. 1B
Skin corrosion/irritation: Skin Irrit. 2
Respiratory or skin sensitization: Skin Sens. 1
Specific target organ toxicity - single exposure: STOT SE 3 (narcotic effects)
Hazardous to the aquatic environment: Aquatic Chronic 2

Label elements

WHMIS 2015

Signal word: Danger

Pictograms:



Hazard statements

Highly flammable liquid and vapour.
Causes skin irritation.
May cause an allergic skin reaction.
May damage fertility or the unborn child.
May cause drowsiness or dizziness.
Toxic to aquatic life with long lasting effects.

Precautionary statements

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Do not breathe vapour.
Do not get in eyes, on skin, or on clothing.
Wear protective gloves/protective clothing/eye protection/face protection.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER/doctor if you feel unwell.
Avoid release to the environment.

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.

3. Composition/information on ingredients

Mixtures

Chemical characterization

Preparation solved in petroleum spirit

Hazardous components

CAS No	Chemical name	Quantity
64742-49-0	Naphtha (petroleum) [Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclic compounds, < 3% n-hexane]	< 60 %
64742-49-0	Naphtha (petroleum) [Hydrocarbons, C6, isoalkanes, < 3% n-hexane]	< 20 %
1314-13-2	Zinc oxide	< 2,5 %
8050-09-7	Colophonium	< 1 %
108-46-3	1,3-Dihydroxybenzene	< 1 %
100-97-0	Methenamine	< 1 %
793-24-8	N-(1,3-Dimethylbutyl)-N'-phenyl-p-phenylenediamine	< 0,3 %
90-30-2	N-phenyl-1-naphthylamine	< 1 %

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.

4. First-aid measures

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 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.

Most important symptoms and effects, whether acute or delayed

May cause drowsiness or dizziness.
Causes skin irritation.
May cause an allergic skin reaction.
May damage fertility. May damage the unborn child.
Attention. Beware, danger of aspiration.

Indication of immediate medical attention and special treatment needed

Treat symptoms.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Foam, carbon dioxide (CO_2), dry chemical, water-spray.

Unsuitable extinguishing media

Full water jet.

Specific hazards arising from the hazardous product

Fire may produce:
Carbon monoxide (CO), carbon dioxide (CO_2) and nitrogen oxides (NOx).

Special protective equipment and precautions for fire-fighters

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.

6. Accidental release measures

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.

For emergency responders

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

Environmental precautions

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

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.

Reference to other sections

Observe protective instructions (see Sections 7 and 8).
Information for disposal look up chapter 13.

7. Handling and storage

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.
Pay attention to anti-explosion protection rules: In case of an explosive atmosphere use only explosion-proof equipment.

Advice on general occupational hygiene

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.

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.

Hints on joint storage

Incompatible with oxidizing agents.

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

8. Exposure controls/Personal protection

Control parameters

Exposure limits (ACGIH)

CAS No	Chemical name	ppm	mg/m³	F/ml	Category	Origin
8050-09-7	(OLD) Rosin core solder thermal decomposition products (colophony)	-	-		as low as possible	ACGIH-2024
1333-86-4	Carbon black (inhalable fraction)		3		TWA (8 h)	ACGIH-2024
100-97-0	Hexamethylenetetramine (inhalable fraction and vapor)	0.17	1		TWA (8 h)	ACGIH-2024
9006-04-6	Natural rubber latex as inhalable allergenic protein	-	0.0001		TWA (8 h)	ACGIH-2024
108-46-3	Resorcinol	10	45		TWA (8 h)	ACGIH-2024
		20	90		STEL (15 min)	ACGIH-2024
1314-13-2	Zinc oxide (respirable fraction)		2		TWA (8 h)	ACGIH-2024
			10		STEL (15 min)	ACGIH-2024

Exposure controls

Appropriate engineering controls

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

Individual protection measures, such as personal protective equipment

Eye/face protection

Tightly fitting goggles.

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

Respiratory protection

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

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state: Liquid
Colour: Black
Odour: Hydrocarbon-like

		Test method
Changes in the physical state		
Melting point/freezing point:	< - 50 °C	
Boiling point or initial boiling point and boiling range:	60 - 95 °C	*)
Sublimation point:	n.a.	
Softening point:	n.d.	
Flash point:	- 25 °C	*)

Flammability

Solid/liquid:	n.a.	

Explosive properties

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

Lower explosive limits:	0,6 vol. %	*)
Upper explosive limits:	8,3 vol. %	*)
Auto-ignition temperature:	n.d.	

Self-ignition temperature

Solid:	n.a.	
Gas:	n.a.	
Decomposition temperature:	n.d.	
pH-Value:	n.d.	
Viscosity / dynamic:	< 1200 mPa·s	
Viscosity / kinematic: (at 40 °C)	> 20,5 mm²/s	
Flow time:	n.d.	
Water solubility: (at 20 °C)	Immiscible	

Solubility in other solvents

n.d.

Partition coefficient n-octanol/water:	n.d.	
Vapour pressure: (at 20 °C)	100 - 200 hPa	*)
Density:	< 1 g/cm³	
Bulk density:	n.a.	
Relative vapour density:	n.d.	

Other information

Information with regard to physical hazard classes

Sustained combustibility:	Sustained combustibility

Oxidizing properties

Not oxidising.

Other safety characteristics

Solvent separation test:	n.d.
Solvent content:	< 80 %
Evaporation rate:	n.d.

Further Information

*) Naphtha (petroleum)

10. Stability and reactivity

Reactivity

No decomposition if stored and applied as directed.

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

Reactions with oxidizing agents.

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.

Incompatible materials

Oxidizing agents

Hazardous decomposition products

No hazardous decomposition products known.
Fire may produce:
Carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx)

11. Toxicological information

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

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

Irritation and corrosivity

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

Sensitizing effects

May cause an allergic skin reaction. (Colophonium; 1,3-Dihydroxybenzene; Methenamine; N-(1,3-Dimethylbutyl)-N'-phenyl-p-phenylenediamine; N-phenyl-1-naphthylamine)

Carcinogenic/mutagenic/toxic effects for reproduction

May damage fertility or the unborn child. (N-(1,3-Dimethylbutyl)-N'-phenyl-p-phenylenediamine)
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 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.

Information on other hazards

Endocrine disrupting properties

No data available

Other information

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.

12. Ecological information

Ecotoxicity

Ecological dates 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.

Persistence and degradability

Naphtha (petroleum)
Liable to easy biological disintegration.

Bioaccumulative potential

Naphtha (petroleum)
A bioaccumulation potential is to be expected.

Mobility in soil

No data available

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.

Other adverse effects

Slightly water hazardous.

Further information

Do not flush into surface water or sanitary sewer system.

13. Disposal considerations

Waste treatment methods

Disposal recommendations

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

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.

14. Transport information

Canadian TDG

UN number:	UN 1133
Proper shipping name:	Adhesives
Hazard classes:	3
Packing group:	II

Hazard label:	3
Limited quantity:	5L

Marine transport (IMDG)

UN number or ID number:	UN 1133
United Nations proper shipping name:	ADHESIVES (Naphtha (petroleum))
Transport hazard class(es):	3
Packing group:	II
Hazard label:	3

Marine pollutant:	Yes
Special Provisions:	-
Limited quantity:	5 L / 30 kg
Excepted quantity:	E2
EmS:	F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

UN number or ID number:	UN 1133
United Nations proper shipping name:	ADHESIVES
Transport hazard class(es):	3
Packing group:	II
Hazard label:	3

Special Provisions:	A3
Limited quantity Passenger:	1 L
Passenger LQ:	Y341
Excepted quantity:	E2
IATA-packing instructions - Passenger:	353
IATA-max. quantity - Passenger:	5 L
IATA-packing instructions - Cargo:	364
IATA-max. quantity - Cargo:	60 L

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes

15. Regulatory information

Canadian regulations

DSL/NDSL inventory status

All components are listed on the DSL Inventory.

WHMIS classification

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all information required by the CPR.

16. Other information

Changes

This data sheet contains changes from the previous version in section(s): 7,9,12.

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

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

Further Information

Data of sections 4 to 8, as well as 10 to 12, do not necessarily refer to the use and the regular handling of the product (in this sense consult package leaflet and expert information), but to release 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 relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)