



1. Identification of the substance/preparation and of the company/undertaking

Identification of the substance or preparation

TIP TOP T2-SOLUTION B4, free of chlorinated and aromatic hydrocarbons

Art.-No.:

517 9015

Use of the substance/preparation

Adhesive

Company/undertaking identification

REMA TIP TOP GmbH a company of the group
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D-85586 Poing

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Telephone ++49 (0) 8121 / 707 - 0

Inquiry office

Emergency telephone :++49 (0) 6132 / 84463 (GBK Gefahrgut Buero GmbH, Ingelheim)

Responsible for the safety data sheet: sds@gbk-ingelheim.de

2. Hazards identification

Classification

Indications of danger : Highly flammable, Irritant, Dangerous for the environment

R-phrases :

Highly flammable.

Irritating to eyes and skin.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Vapours may cause drowsiness and dizziness.

3. Composition/information on ingredients

Chemical characterization (preparation)

Preparation with ethyl acetate

Hazardous components

EC-No.	CAS-No.	Chemical name	Quantity	Classification
205-500-4	141-78-6	Ethyl acetate	< 60 %	F, Xi R11-36-66-67
295-529-9	92062-15-2	Solvent naphta (petroleum)	< 30 %	F, Xn, Xi, N R11-38-51-53-65-67
215-222-5	1314-13-2	zinc oxide	< 1 %	N R50-53
205-232-8	136-23-2	zinc bis(dibutylidithiocarbamate)	< 1 %	Xi, N R36/37/38-43-50-53

Full text of each relevant R phrase can be found in heading 16.

Further Information

According to note P to the directive 67/548/EEC, "Solvent naphta (petroleum)" is not to be classified as "carcinogenic" ingredient because a benzene content (EINECS No. 200-753-7) is below 0.1 % by weight.

4. First aid measures

General information

Remove contaminated soaked clothing immediately.

If you feel unwell, seek medical advice.

Take away from danger area and lay down affected person.



After inhalation

Move to fresh air in case of accidental inhalation of vapours or decomposition products.
In the event of symptoms refer for medical treatment.

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.
Seek medical treatment by eye specialist.

After ingestion

Induce vomiting only upon the advice of a physician.
Attention. Beware, danger of aspiration.
Do not induce vomiting.
Summon a doctor immediately.

5. Fire-fighting measures

Suitable extinguishing media

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

Extinguishing media which must not be used for safety reasons

Full water jet

Special exposure hazards arriving from substance or preparation itself, combustion products, resulting gases

Fire may produce:

Carbon monoxide, carbon dioxide, sulphur oxides and nitrogen oxides (NO_x).

Special protective equipment for fire-fighters

Use breathing apparatus with independent air supply.
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.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

6. Accidental release measures

Personal precautions

In case of vapour formation use respirator.
Use only explosion-proof equipment.
Ensure adequate ventilation.
Use personal protective clothing.
Keep away sources of ignition.

Environmental precautions

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

Methods for cleaning up/taking up

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



7. Handling and storage

Handling

Advice on safe handling

Keep container tightly closed.

Vapours are heavier than air and spread along ground.

Keep a good ventilation and air-exhaust at the place of work.

Avoid contact with skin, eyes and clothing.

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.

Storage

Requirements for storage rooms and vessels

Keep container tightly closed in a dry, cool and well-ventilated place.

Pay attention to anti-explosion rules.

Advice on storage compatibility

Incompatible with:

Oxidizing agents

Nitrous acid and other nitrosating agents.

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

Storageclass (VCI)

3 A

8. Exposure controls/personal protection

Exposure limit values

Exposure limits (EH40)

CAS No.	Substance	ml/m ³	mg/m ³	F/ml	Category	Origin
141-78-6	Ethyl acetate	200	-		TWA (8 h)	WEL
	Ethyl acetate	400	-		STEL (15 min)	WEL
1314-13-2	Zinc oxide, fume (OLD)	-	5		TWA (8 h)	OES
	Zinc oxide, fume (OLD)	-	10		STEL (15 min)	OES

Exposure controls

Occupational exposure controls

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 clothes before re-use.

Respiratory protection

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

Hand protection



Protective gloves resistant to chemicals made off butyl, Minimum coat thickness 0,7 mm, Permeation resistance (wear duration) > 30 minutes, i.e. protective glove <Butoject 898> 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.

Eye protection

Tightly fitting goggles

Skin protection

Long sleeved clothing.

9. Physical and chemical properties

General information

Physical state	Liquid
Colour	Black
Odour	Ester-like

Important health, safety and environmental information

Test method

Changes in the physical state

Boiling point	76 °C	approx.
Flash point	< - 18 °C	

Flammability

Lower explosion limits	0,6 vol. %
Upper explosion limits	

Ignition temperature	460 °C
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Density (at 20 °C) :	0,9 g/cm ³
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Water solubility :	Immiscible
at (20 °C)	

Flow time :	> 30 s	3 DIN/ISO 2431
at (23 °C)		

Solvent content

< 90 %

10. Stability and reactivity

Conditions to avoid

To avoid thermal decomposition, do not overheat.

Vapour/air mixtures are explosive at intensive warming.

Heating can release vapours which can be ignited.

Materials to avoid

Nitrous acid and other nitrosating agents.

Oxidizing agents.

Hazardous decomposition products

Carbon monoxide, carbon dioxide, sulphur oxides, and nitrogen oxides (NO_x).

An inappropriate handling, for instance major amounts of product combined with strong heat and nitrosating agents, renders possible a cleavage of nitrosamines in traces.

Additional information

No decomposition if stored and applied as directed.



11. Toxicological information

Empirical data on effects on humans

Irritating to eyes and skin.

Vapours may cause drowsiness and dizziness.

Effects of breathing high concentrations of vapour may include.

Headache, dizziness, weakness, unconsciousness.

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

An inappropriate handling, for instance major amounts of product combined with strong heat and nitrosating agents, renders possible a cleavage of nitrosamines in traces.

12. Ecological information

Further information

Do not flush into surface water or sanitary sewer system.

Slightly water hazardous.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. Disposal considerations

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 dangerous substances

Classified as 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.

14. Transport information

Land transport (ADR/RID)

ADR/RID class	3
Classification code :	F1
Hazard-no.	33
UN number	1133
Hazard label	3
ADR/RID packing group	II
Limited quantity	LQ 6

Description of the goods

Adhesives

**Remarks (land transport)**

LQ 6: combination packaging: 5 l / 30 kg (total gross mass); trays: 1 l / 20 kg (total gross mass).

Inland waterways transport**Marine transport**

IMDG code	3
UN number	1133
Marine pollutant	No
EmS	F-E; S-D
IMDG packing group	II
Limited quantity :	5 L / 30 kg
Hazard label	3

Description of the goods

ADHESIVES

Remarks (marine transport)

Limited quantities (section 3.4): combination packaging: 5 l / 30 kg (total gross mass); trays: 5 l / 20 kg (total gross mass).

Air transport

ICAO/IATA-DGR	3
UN/ID number	1133
Hazard label	3
IATA-packing instructions - Passenger	305
IATA-max. quantity - Passenger	5 L
IATA-packing instructions - Cargo	307
IATA-max. quantity - Cargo	60 L
ICAO packing group	II
Limited quantity Passenger	Y305 / 1 L

Description of the goods

ADHESIVES

15. Regulatory information**Labelling**

Indication of danger F - Highly flammable; Xi - Irritant; N - Dangerous for the environment

Additional advice on labelling According to EC-regulations the product is to be labelled as follows:

R phrases

11	Highly flammable.
67	Vapours may cause drowsiness and dizziness.
36/38	Irritating to eyes and skin.
51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S phrases

16	Keep away from sources of ignition - No smoking.
26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
33	Take precautionary measures against static discharges.
35	This material and its container must be disposed of in a safe way.
61	Avoid release to the environment. Refer to special instructions / Safety data sheets.

Special labelling for certain preparations

Contains zinc bis(dibutyldithiocarbamate) . May produce an allergic reaction.

National regulatory information



Employment restrictions	Observe employment restrictions for young people.; Observe employment restrictions for child bearing mothers and nursing.
Water contaminating class 1999/13/EC (VOC)	1 - slightly water contaminating < 90 %

16. Other information

Full text of R-phrases referred to under sections 2 and 3

11	Highly flammable.
36	Irritating to eyes.
38	Irritating to skin.
43	May cause sensitization by skin contact.
50	Very toxic to aquatic organisms.
51	Toxic to aquatic organisms.
53	May cause long-term adverse effects in the aquatic environment.
65	Harmful: may cause lung damage if swallowed.
66	Repeated exposure may cause skin dryness or cracking.
67	Vapours may cause drowsiness and dizziness.
36/38	Irritating to eyes and skin.
36/37/38	Irritating to eyes, respiratory system and skin.
51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Other data

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.)