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

1.1. Product identifier

TIP TOP T2-SOLUTION A

Art.-No.

517 7362

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

REMA TIP TOP GmbH

Gruber Strasse 63

D-85586 Poing

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

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

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Indications of danger : Toxic

R-phrases:

Irritating to eyes and skin.

May cause cancer.

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

Vapours may cause drowsiness and dizziness.

Possible risks of irreversible effects.

2.2. Label elements

Danger symbols:

T - Toxic



T - Toxic

R phrases

- | | |
|-------|---|
| 36/38 | Irritating to eyes and skin. |
| 45 | May cause cancer. |
| 52/53 | Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| 67 | Vapours may cause drowsiness and dizziness. |
| 68 | Possible risks of irreversible effects. |

S phrases

- | | |
|----|---|
| 45 | In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). |
| 53 | Avoid exposure - obtain special instructions before use. |
| 60 | This material and its container must be disposed of as hazardous waste. |
| 61 | Avoid release to the environment. Refer to special instructions / Safety data sheets. |

Special labelling of certain mixtures

Restricted to professional users.

Hazardous components which must be listed on the label

Trichloroethylene

2.3. Other hazards

Not known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Preparation with trichloroethylene

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification	
Index No	GHS classification	
REACH No		
201-167-4	Trichloroethylene	< 95 %
79-01-6	Carc. Cat. 2, Muta. Cat. 3, Xi R45-68-67-36/38-52-53	
602-027-00-9	Carc. 1B, Muta. 2, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, Aquatic Chronic 3; H350 H341 H315 H319 H336 H412	
01-2119490731-36		
215-222-5	Zinc oxide	< 1 %
1314-13-2	N R50-53	
030-013-00-7	Aquatic Acute 1, Aquatic Chronic 1; H400 H410	
01-2119463881-32		

Full text of R- and H-phrases: see section 16.

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.
 In the event of symptoms refer for medical treatment.

After contact with skin

Wash off immediately 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.
 Summon a doctor immediately.
 Immediately give plenty of water, if possible charcoal slurry.

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

May cause cancer.
 Possible risk of irreversible effects.
 Irritating to eyes and skin.
 Vapours may cause drowsiness and dizziness.

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.
 Product does not burn, fire-extinguishing activities according to surrounding.

Extinguishing media which must not be used for safety reasons

Full water jet.

5.2. Special hazards arising from the substance or mixture

Fire may produce:
 Carbon monoxide and carbon dioxide.

Chlorine and traces of phosgene.
Hydrogen chloride gas.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit.

Additional information

Keep away from heat and sources of ignition.
Cool containers at risk with water spray jet.
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.
Use personal protective clothing.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater.
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).
Shovel into suitable container for disposal.

6.4. Reference to other sections

Observe protective instructions (see Sections 7 and 8).
Information for disposal look up chapter 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.
Care for thoroughly room ventilation, if necessary suck off at workplace.
Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion

Keep away from heat and sources of ignition.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep containers tightly closed in a cool, well-ventilated place.

Advice on storage compatibility

Incompatible with:
Oxidizing agents
Aluminium powder
Alkaline metals and earth alkaline metals.
Alkaline leaches

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	Chemical name	ml/m ³	mg/m ³	F/ml	Category	Origin
79-01-6	Trichloroethylene	100	550		TWA (8 h)	WEL
		150	820		STEL (15 min)	WEL

8.2. Exposure controls

Occupational exposure controls

Ensure adequate ventilation, especially in confined areas.

Protective and hygiene measures

Do not inhale vapours.

Avoid contact with eyes and skin.

Wash hands before breaks and immediately after handling the product.

When using, do not eat, drink or smoke.

Take off immediately all contaminated clothing.

Respiratory protection

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

Hand protection

Protective gloves resistant to chemicals made off viton, minimum coat thickness 0,7 mm, permeation resistance (wear duration) approx. 480 minutes, i.e. protective glove <Vitoject 890> 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

Eye wash bottle with pure water.

Tightly fitting goggles.

Skin protection

Long sleeved clothing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Black
Odour:	Sweetish

Test method

Changes in the physical state

Boiling point:	Approx. 90 °C
Flash point:	n.a. *)
Lower explosion limits:	7,9 vol. %
Upper explosion limits:	
Ignition temperature:	410 °C
Vapour pressure:	77 hPa
(at 20 °C)	
Density:	1,42 g/cm³
Water solubility:	Immiscible
(at 20 °C)	
Viscosity / dynamic:	2000 mPa·s
Vapour density:	4,54
Solvent content:	> 90 %

9.2. Other information

**) According to PTB instructions, trichloroethylene has no flashpoint; however, vapour and air mixtures are flammable under a stronger energy influx."

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 alkalies.
Reactions with alkali metals.
Reactions with earth alkali metals.

10.4. Conditions to avoid

Above 120°C, a thermic decomposition may take place.

10.5. Incompatible materials

Alkaline metals and alkaline earth metals., Bases., oxidizing agents, Aluminium powder

10.6. Hazardous decomposition products

Chlorine and traces of phosgene.
Hydrogen chloride gas
Carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

No toxicological data available.
Trichloroethylene
LD50/oral/rat: 4920 mg/kg
LD50/dermal/rabbit: > 2000 mg/kg
LC50/inhalation: No data available.

Irritation and corrosivity

Eye irritation: Irritant
Skin irritation: Irritant

Sensitising effects

Not classified.

Severe effects after repeated or prolonged exposure

STOT - Single exposure: Category 3 [May cause drowsiness or dizziness.]
STOT - Repeated exposure: Not classified.
Aspiration hazard: Not classified.

Carcinogenic/mutagenic/toxic effects for reproduction

Carcinogenicity: Category 2 [May cause cancer.]
Mutagenicity: Category 3 [Possible risk of irreversible effects.]
Teratogenicity: Not classified.

Additional information on tests

Classification in compliance with the assessment procedure specified in the EC guidelines 1999/45/EG.

Empirical data on effects on humans

Components of the product may be absorbed into the body through the skin. (skin absorption).
Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.
Effects of breathing high concentrations of vapour may include:
Headache, dizziness, weakness, unconsciousness.
Hazard of lung oedema.
Skin contact or inhalation of solvents contained in this product may cause irritation of skin, eyes and mucous membranes.

SECTION 12: Ecological information

12.1. Toxicity

Ecological data are not available.
Trichloroethylene
LC50/Pimephales promelas/ 96 h = 42,4 mg/l
EC50/Daphnia magna/48 h = 47 mg/l
EC50/Algae/96 h = 420 mg/l
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

No data available.

12.6. Other adverse effects

Severe 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 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.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN1710
14.2. UN proper shipping name: TRICHLOROETHYLENE, Solution
14.3. Transport hazard class(es): 6.1
14.4. Packing group: III
Hazard label: 6.1



Classification code: T1
Limited quantity: 5 L / 30 kg
Transport category: 2
Hazard No: 60
Tunnel restriction code: E

Inland waterways transport

14.1. UN number: UN1710
14.2. UN proper shipping name: TRICHLOROETHYLENE, Solution
14.3. Transport hazard class(es): 6.1
14.4. Packing group: III
Hazard label: 6.1



Classification code: T1
Limited quantity: 5 L / 30 kg

Marine transport

14.1. UN number: UN1710
14.2. UN proper shipping name: TRICHLOROETHYLENE SOLUTION

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14.3. Transport hazard class(es): 6.1
14.4. Packing group: III
Hazard label: 6.1



Limited quantity: 5 L / 30 kg
EmS: F-A, S-A

Air transport

UN/ID number: UN1710
14.2. UN proper shipping name: TRICHLOROETHYLENE SOLUTION
14.3. Transport hazard class(es): 6.1
14.4. Packing group: III
Hazard label: 6.1



Limited quantity Passenger: Y642 / 2 L
IATA-packing instructions - Passenger: 655
IATA-max. quantity - Passenger: 60 L
IATA-packing instructions - Cargo: 663
IATA-max. quantity - Cargo: 220 L

14.5. Environmental hazards

Dangerous for the environment: no

14.6. Special precautions for user

Handle in accordance with good industrial hygiene and safety practices.

14.7. Transport in bulk according to Annex II of MARPOL73/78 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

1999/13/EC (VOC): > 90 %

National regulatory information

Employment restrictions: Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing.

Water contaminating class (D): 3 - highly water contaminating

Additional information

Chemical prohibition regulation consider.

15.2. Chemical Safety Assessment

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

SECTION 16: Other information

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

36/38 Irritating to eyes and skin.
45 May cause cancer.
50 Very toxic to aquatic organisms.
52 Harmful to aquatic organisms.
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
53 May cause long-term adverse effects in the aquatic environment.
67 Vapours may cause drowsiness and dizziness.
68 Possible risks of irreversible effects.

Full text of H-Statements referred to under sections 2 and 3

H315 Causes skin irritation.



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H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

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.)