

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

1.1. Product identifier

TIP TOP HARDENING PASTE

Art.-No.

525 0643

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

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

1.4. Emergency telephone

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

number:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Indications of danger: Toxic, Dangerous for the environment

R phrases:

Irritating to eyes and skin.

May cause cancer.

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

Vapours may cause drowsiness and dizziness.

Possible risks of irreversible effects.

GHS classification

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Germ cell mutagenicity: Muta. 2

Carcinogenicity: Carc. 1B

Specific target organ toxicity - single exposure: STOT SE 3

Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

Causes skin irritation.

Causes serious eye irritation.

Suspected of causing genetic defects.

May cause cancer.

May cause drowsiness or dizziness.

Toxic to aquatic life with long lasting effects.

2.2. Label elements

Pictograms:

GHS07-GHS08-GHS09



Signal word:

Danger

Hazardous components which must be listed on the label

Trichloroethylene

Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

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H341	Suspected of causing genetic defects.
H350	May cause cancer.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing vapour.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P273	Avoid release to the environment.

Special labelling of certain mixtures

EUH208	Contains Colophony. May produce an allergic reaction. Restricted to professional users.
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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	< 80 %
79-01-6	Carc. Cat. 2, Muta. Cat. 3, Xi - Irritant 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	< 10 %
1314-13-2	N - Dangerous for the environment R50-53	
030-013-00-7	Aquatic Acute 1, Aquatic Chronic 1; H400 H410	
01-2119463881-32		
232-475-7	Colophonium	< 1 %
8050-09-7	R43	
650-015-00-7	Skin Sens. 1; H317	
01-2119480418-32		

Full text of R and H phrases: see Section 16.

Further Information

SVHC substance [Regulation (EC) No 1907/2006, Article 57]: Trichloroethylene

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.

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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

Causes skin irritation.
Causes serious eye irritation.
May cause drowsiness or dizziness.
May cause cancer.
Suspected of causing genetic defects.

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.

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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	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
8050-09-7	Rosin-based solder flux fume	-	0.05		TWA (8 h)	WEL
		-	0.15		STEL (15 min)	WEL
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:	1,3 g/cm ³
Water solubility:	Immiscible
(at 20 °C)	
Viscosity / dynamic:	300000 mPa·s
(at 25 °C)	
Vapour density:	4,54
Solvent content:	< 80 %

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: 5400 mg/kg
LD50/dermal/rabbit: > 2000 mg/kg
LC50/inhalation/rat: 12500 ppm/4h

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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 1B [May cause cancer.]

Mutagenicity: Category 2 [Suspected of causing genetic defects.]

Teratogenicity: Not classified.

Additional information on tests

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

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

Trichloroethylene

LC50/Pimephales promelas/ 96 h = 42,4 mg/l

EC50/Daphnia magna/48 h = 20,8 mg/l

EC50/Algae/96 h = 36,5 mg/l

Zinc oxide

EC50/Selenastrum capricornutum/72 h = 0,17 mg/l

Toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

Trichloroethylene

Biodegradable (OECD): 2,4% (14 d) [OECD 301C]

Not readily biodegradable.

12.3. Bioaccumulative potential

Trichloroethylene

Low bio-accumulation can be estimated because of low log Po/w. (Log Pow: 2,53)

12.4. Mobility in soil

Trichloroethylene

High mobility in soil.

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

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.

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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 (ADN)

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
Special Provisions: 802
Limited quantity: 5 L / 30 kg

Marine transport (IMDG)

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



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

Air transport (ICAO)

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

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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: yes



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): < 80 %

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.
43	May cause sensitisation by skin contact.
45	May cause cancer.
50	Very toxic to aquatic organisms.
51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
52	Harmful to aquatic organisms.
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.
H317	May cause an allergic skin reaction.
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.
H411	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



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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.)