



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

Identification of the substance or preparation

TIP TOP HEATING SOLUTION HCR-1

Art.-No.:

538 1309, 538 1392, 538 1393

Use of the substance/preparation

Assembling solution

Company/undertaking identification

REMA TIP TOP GmbH

a company of the group

Gruber Straße 63

D-85586 Poing

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

Stahlgruber Otto Gruber GmbH & Co KG

Gruber Straße 65

D-85586 Poing

2. Hazards identification

Classification

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.

3. Composition/information on ingredients

Chemical characterization

(preparation)

Preparation in trichloroethylene

Hazardous components

EC-No.	CAS-No.	Chemical name	Quantity	Classification
201-167-4	79-01-6	Trichloroethylene	< 90 %	Carc. Cat. 2, Muta. Cat. 3, Xi R45-68-67-36/38-52-53
215-222-5	1314-13-2	zinc oxide	< 2,5 %	N R50-53
232-475-7	8050-09-7	Colophonium	< 1 %	R43

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

4. 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.

5. Fire-fighting measures

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

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

Fire may produce:

Carbon monoxide and carbon dioxide.

Chlorine and traces of phosgene.

Hydrogen chloric gas.

Special protective equipment for fire-fighters

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.

6. Accidental release measures

Personal precautions

In case of vapour formation use respirator.

Ensure adequate ventilation.

Use personal protective clothing.

Environmental precautions

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

Do not discharge into the subsoil/soil.

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.

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.

Storage

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.

Storageclass (VCI)

6.1B

8. Exposure controls/personal protection

Exposure limit values

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
	Trichloroethylene	150	820		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

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.

9. Physical and chemical properties

General information

Physical state	Liquid
Colour	Black
Odour	Sweetish

Important health, safety and environmental information

		Test method
Changes in the physical state		
Boiling point	90 °C	approx.
Flash point	n.a.	*)
Flammability		
Lower explosion limits	7,9 vol. %	
Upper explosion limits		
Ignition temperature	410 °C	
Vapour pressure :	77 hPa	
at (20 °C)		
Density :	1,45 g/cm ³	
Water solubility :	Immiscible	
at (20 °C)		
Viscosity / dynamic :	1500 mPa·s	
Vapour density :	4,54	

Solvent content

< 90 %

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

10. Stability and reactivity

Conditions to avoid

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

Materials to avoid

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

Hazardous decomposition products

Chlorine and traces of phosgene.

Hydrogen chloride gas

Carbon monoxide and carbon dioxide.

Additional information

No decomposition if stored and applied as directed.

11. Toxicological information



Empirical data on effects on humans

May cause cancer.

Vapours may cause drowsiness and dizziness.

Possible risk of irreversible effects.

Irritating to eyes and skin.

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.

12. Ecological information

Further information

Do not flush into surface water or sanitary sewer system.

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

Severe hazard to waters

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	6.1
Classification code :	T1
Hazard-no.	60
UN number	1710
Hazard label	6.1
ADR/RID packing group	III
Limited quantity	LQ 7

Description of the goods

TRICHLOROETHYLENE, Solution



Other applicable information (land transport)

LQ 7: combination packaging: 5 l / 30 kg (total gross mass); trays: 5 l / 20 kg (total gross mass).

Inland waterways transport

Marine transport

IMDG code	6.1
UN number	1710
Marine pollutant	No
EmS	F-A; S-A
IMDG packing group	III
Limited quantity :	5 L / 30 kg
Hazard label	6.1

Description of the goods

TRICHLOROETHYLENE SOLUTION

Other applicable information (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	6.1
UN/ID number	1710
Hazard label	6.1
IATA-packing instructions - Passenger	605
IATA-max. quantity - Passenger	60 L
IATA-packing instructions - Cargo	612
IATA-max. quantity - Cargo	220 L
ICAO packing group	III
Limited quantity Passenger	Y605 / 2 L

Description of the goods

TRICHLOROETHYLENE SOLUTION

15. Regulatory information

Labelling

Indication of danger T - Toxic

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

Hazardous component(s) to be indicated on label

Trichloroethylene

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 for certain preparations

Restricted to professional users.

Contains Colophonium . 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 (D)

3 - highly water contaminating

1999/13/EC (VOC)

< 90 %

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 sensitization by skin contact.

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.

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.)