

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

Product identifier

TIP TOP METAL PRIMER PR 300

Art.-No.

525 2414, 529 7667, 593 0877

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

Use of the substance/mixture

Primer Coat

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

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.

Label elements

Pictograms:

GHS07-GHS08-GHS09



Signal word:

Danger

Hazardous components which must be listed on the label

Tetrachloroethylene

Trichloroethylene

Hazard statements

H315 Causes skin irritation.

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H319	Causes serious eye irritation.
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

Restricted to professional users.

Other hazards

Not known.

SECTION 3: Composition/information on ingredients

Mixtures

Chemical characterization

Preparation with trichloroethylene and tetrachloroethylene

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification	
Index No	GHS classification	
REACH No		
204-825-9	Tetrachloroethylene	< 40 %
127-18-4	Carc. Cat. 3, N R40-51-53	
602-028-00-4	Carc. 2, Aquatic Chronic 2; H351 H411	
201-167-4	Trichloroethylene	< 30 %
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		
203-539-1	1-Methoxypropan-2-ol	< 10 %
107-98-2	R10-67	
603-064-00-3	Flam. Liq. 3, STOT SE 3; H226 H336	
01-2119457435-35		
215-535-7	Xylene (mixed isomers)	< 5 %
1330-20-7	Xn, Xi R10-20/21-38	
601-022-00-9	Flam. Liq. 3, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2; H226 H312 H332 H315	
01-2119486136-34		
203-550-1	4-Methylpentan-2-one	< 2 %
108-10-1	F, Xn, Xi R11-20-36/37-66	
606-004-00-4	Flam. Liq. 2, Acute Tox. 4, Eye Irrit. 2, STOT SE 3; H225 H332 H319 H335	
02-2119752523-40		
202-849-4	Ethyl benzene	< 2 %
100-41-4	F, Xn R11-20	
601-023-00-4	Flam. Liq. 2, Acute Tox. 4; H225 H332	
02-2119752523-40		
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

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.
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.

Most important symptoms and effects, both acute and delayed

May cause cancer.
Vapours may cause drowsiness and dizziness.
Suspected of causing genetic defects.
Irritating to eyes and skin.

Indication of any immediate medical attention and special treatment needed

Treat symptoms.

SECTION 5: Firefighting measures

Extinguishing media

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 hazards arising from the substance or mixture

Fire may produce:
Carbon monoxide and carbon dioxide.
Chlorine and traces of phosgene.
Hydrogen chloride gas.

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

Personal precautions, protective equipment and emergency procedures

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 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.

Reference to other sections

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

SECTION 7: Handling and storage

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.

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.
 Bases.

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

Specific end use(s)

Primer Coat

SECTION 8: Exposure controls/personal protection

Control parameters

Exposure limits (EH40)

CAS No	Chemical name	ml/m ³	mg/m ³	F/ml	Category	Origin
107-98-2	1-Methoxypropan-2-ol	100	375		TWA (8 h)	WEL
		150	560		STEL (15 min)	WEL
108-10-1	4-Methylpentan-2-one	50	208		TWA (8 h)	WEL
		100	416		STEL (15 min)	WEL
100-41-4	Ethylbenzene	100	441		TWA (8 h)	WEL
		125	552		STEL (15 min)	WEL
127-18-4	Tetrachloroethylene	50	345		TWA (8 h)	WEL
		100	689		STEL (15 min)	WEL
79-01-6	Trichloroethylene	100	550		TWA (8 h)	WEL
		150	820		STEL (15 min)	WEL
1330-20-7	Xylene, o-, m-, p- or mixed isomers	50	220		TWA (8 h)	WEL
		100	441		STEL (15 min)	WEL

Biological Monitoring Guidance Values (EH40)

CAS No	Chemical name	Parameter	Value	Test material	Sampling time
108-10-1	4-methylpentan-2-one	4-methylpentan-2-one	20 µmol/L	urine	Post shift
1330-20-7	Xylene, o-, m-, p- or mixed isomers	methyl hippuric acid	650 mmol/mol	urine	Post shift

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.

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 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

Tightly fitting goggles.

Eye wash bottle with pure water.

Skin protection

Long sleeved clothing.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Red
Odour:	Sweetish

Test method

Changes in the physical state

Boiling point:	> 86 °C
Flash point:	> 70 °C
Lower explosion limits:	8 vol. %
Upper explosion limits:	
Ignition temperature:	410 °C
Vapour pressure:	77 hPa
(at 20 °C)	
Density:	1,45 g/cm³
Water solubility:	Immiscible
(at 20 °C)	
Solvent content:	< 80 %

SECTION 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 strong alkalies and oxidizing agents.

Reactions with alkali metals.

Conditions to avoid

No decomposition if stored and applied as directed.

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

Incompatible materials

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.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	h
127-18-4	Tetrachloroethylene				
	Acute oral toxicity	LD50	2629 mg/kg	Rat	
	Acute dermal toxicity	LD50	> 10000 mg/kg	Rabbit	
79-01-6	Trichloroethylene				
	Acute oral toxicity	LD50	4920 mg/kg	Rat	
	Acute dermal toxicity	LD50	> 2000 mg/kg	Rabbit	
107-98-2	1-Methoxypropan-2-ol				
	Acute oral toxicity	LD50	> 5000 mg/kg	Ratte	
	Acute dermal toxicity	LD50	11000 mg/kg	Kaninchen	
	Acute inhalation toxicity	LC50	54,6 mg/l	Rat	
1330-20-7	Xylene (mixed isomers)				
	Acute dermal toxicity	ATE	1100 mg/kg		
108-10-1	4-Methylpentan-2-one				
	Acute oral toxicity	LD50	2080 mg/kg	Ratte	
	Acute dermal toxicity	LD50	>16000 mg/kg	Kaninchen	
	Acute inhalation toxicity	ATE	11 mg/l		
100-41-4	Ethyl benzene				
	Acute oral toxicity	LD50	3500 mg/kg	Ratte	
	Acute dermal toxicity	LD50	15400 mg/kg	Kaninchen	
	Acute inhalation toxicity	LC50	17,2 mg/l	Ratte	4
1314-13-2	Zinc oxide				
	Acute oral toxicity	LD50	> 5000 mg/kg	Rat	

Irritation and corrosivity

Eye irritation: Irritant

Skin irritation: Irritant

Sensitizing 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

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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

Toxicity

CAS No	Chemical name			
	Aquatic toxicity	Method	Dose	Species
127-18-4	Tetrachloroethylene			
	Acute fish toxicity	LC50	18,4 mg/l	Pimephales promelas
	Acute algae toxicity	ErC50	10,5 - 509,0 mg/l	Algae
	Acute crustacea toxicity	EC50	7,5 - 22,0 mg/l	Daphnia pulex
107-98-2	1-Methoxypropan-2-ol			
	Acute fish toxicity	LC50	4600 - 10000 mg/l	Leuciscus idus
	Acute algae toxicity	ErC50	> 1000 mg/l	Selenastrum capricornutum
	Acute crustacea toxicity	EC50	> 500 mg/l	Daphnia magna
108-10-1	4-Methylpentan-2-one			
	Acute fish toxicity	LC50	505 - 540 mg/l	Pimephales promelas
	Acute algae toxicity	ErC50	400 mg/l	Selenastrum capricornutum
	Acute crustacea toxicity	EC50	170 mg/l	Daphnia magna
100-41-4	Ethyl benzene			
	Acute algae toxicity	ErC50	3,6 mg/l	Algen

Persistence and degradability

No data available.

Bioaccumulative potential

No data available.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
127-18-4	Tetrachloroethylene	3,4
107-98-2	1-Methoxypropan-2-ol	-0,437
108-10-1	4-Methylpentan-2-one	1,31
100-41-4	Ethyl benzene	3,15

Mobility in soil

No data available.

Results of PBT and vPvB assessment

No data available.

Other adverse effects

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

Further information

Do not flush into surface water or sanitary sewer system.

Damage to fish and plankton is possible.
Severe hazard to waters

SECTION 13: Disposal considerations

Waste treatment methods

Advice on disposal

Where possible recycling is preferred to disposal.

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Can be incinerated, when in compliance with local regulations.

Waste disposal number of waste from residues/unused products

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish 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)

UN number: UN2810
UN proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (Tetrachloroethylene, Trichloroethylene)
Transport hazard class(es): 6.1
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

UN number: UN2810
UN proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (Tetrachloroethylene, Trichloroethylene)
Transport hazard class(es): 6.1
Packing group: III
Hazard label: 6.1



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

Marine transport

UN number: UN2810
UN proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (trichloroethylene and tetrachloroethylene)
Transport hazard class(es): 6.1
Packing group: III
Hazard label: 6.1



Special Provisions: 223, 274
Limited quantity: 5 L / 30 kg
EmS: F-A, S-A

Air transport

UN/ID number: UN2810
UN proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (trichloroethylene and tetrachloroethylene, mixture)

Transport hazard class(es): 6.1

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

Environmental hazards

Dangerous for the environment: yes



Special precautions for user

Handle in accordance with good industrial hygiene and safety practices.

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

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.

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

- 10 Flammable.
- 11 Highly flammable.
- 20 Harmful by inhalation.
- 20/21 Harmful by inhalation and in contact with skin.
- 36/37 Irritating to eyes and respiratory system.
- 36/38 Irritating to eyes and skin.
- 38 Irritating to skin.
- 40 Limited evidence of a carcinogenic effect.
- 45 May cause cancer.
- 50 Very toxic to aquatic organisms.
- 51 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.
- 66 Repeated exposure may cause skin dryness or cracking.
- 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

- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.

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H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H351	Suspected of causing 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 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.)