

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

1.1. Product identifier

TIP TOP SOLVENT LIQUID BUFFER SPRAY

Art.-No.

505 9692

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

Use of the substance/mixture

Cleaning agent

1.3. Details of the supplier of the safety data sheet

Company name: REMA TIP TOP AG
Street: Gruber Strasse 63
Place: D-85586 Poing
Telephone: +49 (0) 8121 / 707 - 0
Verantwortlich für das Sicherheitsdatenblatt: sds@gbk-ingelheim.de

1.4. Emergency telephone number: INTERNATIONAL: +49 - (0) 6132 - 84463, GBK GmbH (24h - 7d/w - 365d/a)
England and Wales: NHS Direct - 0845 4647; Scotland: NHS 24 - 08454 24 24
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Indications of danger: F+ - Extremely flammable, Xi - Irritant, N - Dangerous for the environment

R phrases:

Extremely 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.

GHS classification

Hazard categories:

Aerosol: Aerosol 1

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Specific target organ toxicity - single exposure: STOT SE 3

Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

Extremely flammable aerosol.

Pressurised container: May burst if heated.

Causes serious eye irritation.

Causes skin irritation.

May cause drowsiness or dizziness.

Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazardous components which must be listed on the label

Ethyl acetate

Hydrocarbons, C7, n-alkanes, isoalkanes, cycloalkanes

Hydrocarbons, C6, isoalkanes, < 3% n-hexane

Signal word: Danger

Pictograms: GHS02-GHS07-GHS09





Hazard statements

- H222 Extremely flammable aerosol.
- H229 Pressurised container: May burst if heated.
- H319 Causes serious eye irritation.
- H315 Causes skin irritation.
- H336 May cause drowsiness or dizziness.
- H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P211 Do not spray on an open flame or other ignition source.
- P251 Do not pierce or burn, even after use.
- P261 Avoid breathing spray.
- P403 Store in a well-ventilated place.
- P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

2.3. Other hazards

In use, may form flammable/explosive vapour-air mixture.
Heating will cause pressure rise with risk of bursting.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Preparation with aliphatic hydrocarbons (free of aromatic hydrocarbons)

TIP TOP SOLVENT LIQUID BUFFER SPRAY

00156-0090

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification	
Index No	GHS classification	
REACH No		
205-500-4	Ethyl acetate	25 - 50 %
141-78-6	F - Highly flammable, Xi - Irritant R11-36-66-67	
607-022-00-5	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066	
01-2119475103-46		
927-510-4	Hydrocarbons, C7, n-alkanes, isoalkanes, cycloalkanes	10 - 25 %
	F - Highly flammable, Xn - Harmful, Xi - Irritant, N - Dangerous for the environment R11-38-51-53-65-67	
	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H315 H336 H304 H411	
01-2119484651-34		
203-448-7	Butane	10 - 25 %
106-97-8	F+ - Extremely flammable R12	
601-004-00-0	Flam. Gas 1; H220	
01-2119474691-32		
200-827-9	Propane	10 - 25 %
74-98-6	F+ - Extremely flammable R12	
601-003-00-5	Flam. Gas 1; H220	
01-2119486944-21		
931-254-9	Hydrocarbons, C6, isoalkanes, < 3% n-hexane	10 - 25 %
	F - Highly flammable, Xn - Harmful, Xi - Irritant, N - Dangerous for the environment R11-38-51-53-65-67	
	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H315 H336 H304 H411	
01-2119484651-34		
200-857-2	Isobutane	2,5 - 10 %
75-28-5	F+ - Extremely flammable R12	
601-004-00-0	Flam. Gas 1; H220	
01-2119485395-27		
203-806-2	Cyclohexane	< 1 %
110-82-7	F - Highly flammable, Xn - Harmful, Xi - Irritant, N - Dangerous for the environment R11-65-38-67-50-53	
601-017-00-1	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Acute 1 (M-Factor = 1), Aquatic Chronic 1 (M-Factor = 1); H225 H315 H336 H304 H400 H410	
01-2119463273-41		
203-777-6	n-Hexane	< 1 %
110-54-3	Repr. Cat. 3, F - Highly flammable, Xn - Harmful, Xi - Irritant, N - Dangerous for the environment R11-62-48/20-65-38-67-51-53	
601-037-00-0	Flam. Liq. 2, Repr. 2, Skin Irrit. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1, Aquatic Chronic 2; H225 H361f H315 H336 H373 H304 H411	
01-2119480412-44		

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

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

Remove contaminated soaked clothing immediately.

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 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

Do not induce vomiting.
Rinse mouth.
Never give anything by mouth to an unconscious person.
Summon a doctor immediately.
Induce vomiting only upon the advice of a physician.

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

Causes serious eye irritation.
Causes skin irritation.
May cause drowsiness or dizziness.
Repeated exposure may cause skin dryness or cracking.
Attention. Beware, danger of aspiration.

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

Alcohol-resistant foam, dry chemical, carbon dioxide (CO₂), water-spray.

Unsuitable extinguishing media

Full water jet.

5.2. Special hazards arising from the substance or mixture

Fire may produce:

Carbon monoxide and carbon dioxide

5.3. Advice for firefighters

Use breathing apparatus with independent air supply.
Protective suit.

Additional information

Heating will cause pressure rise with risk of bursting.
Cool containers at risk with water spray jet.
Vapours can form an explosive mixture with air.
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.
Use only explosion-proof equipment.
Ensure adequate ventilation.
Use personal protective clothing.
Keep away sources of ignition.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/ground water.
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 see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Avoid contact with the skin and the eyes.
Use only in thoroughly ventilated areas.

Advice on protection against fire and explosion

Do not smoke - volatile.
Keep away from open flames, hot surfaces and sources of ignition.
Pay attention to anti-explosion rules.
Do not spray on a naked flame or any other incandescent material.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Protect against direct sun radiation.
Keep container tightly closed.
Use only in well-ventilated areas.
Avoid temperatures above 50°C.

Advice on storage compatibility

Incompatible with oxidizing agents.

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

Cleaning agent

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
106-97-8	Butane	600	1450		TWA (8 h)	WEL
		750	1810		STEL (15 min)	WEL
110-82-7	Cyclohexane	100	350		TWA (8 h)	WEL
		300	1050		STEL (15 min)	WEL
141-78-6	Ethyl acetate	200	-		TWA (8 h)	WEL
		400	-		STEL (15 min)	WEL
110-54-3	n-Hexane	20	72		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

8.2. Exposure controls

Protective and hygiene measures

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.
Do not breath vapours or spray mist.

Eye/face protection

Safety goggles with side protection (EN 166).
Eye wash bottle with pure water (EN 15154).



Hand protection

Protective gloves resistant to chemicals made of nitrile, minimum coat thickness 0.4 mm, permeation resistance (wear duration) approx. 480 minutes, i.e. protective glove <Camatril Velours 730> 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.

Skin protection

Long sleeved clothing (EN 368).

Respiratory protection

In case of insufficient ventilation wear suitable respiratory equipment (gas filter type A) (EN 141).

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Aerosol
Colour:	Colourless
Odour:	Fruity
Flash point:	< 0 °C
Lower explosion limits:	n.d.
Upper explosion limits:	n.d.
Vapour pressure: (at 20 °C)	3000 hPa
Vapour pressure: (at 50 °C)	< 10000 hPa
Density (at 20 °C):	0,658 g/cm ³
Water solubility: (at 20 °C)	Immiscible
Ignition temperature:	n.d.

9.2. Other information

No data available.

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.

10.4. Conditions to avoid

Vapours may form explosive mixture with air.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use.

Heating will cause pressure rise with risk of bursting.

10.5. Incompatible materials

oxidizing agents

10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Based on available data, the classification criteria are not met.
No toxicological data available.

Hydrocarbons, C7, n-alkanes, isoalkanes, cycloalkanes
LD50/oral/rat: > 5840 mg/kg (OECD 401)
LD50/dermal/rat: > 2920 mg/kg (OECD 402)
LC50/inhalation/rat: > 23,3 mg/l/4 h

Hydrocarbons, C6, isoalkanes, < 3% n-hexane
LD50/oral/rat: 16570 mg/kg (OECD 401)
LD50/dermal/rat: 3350 mg/kg (OECD 402)
LC50/inhalation/rat: 259354 mg/m³/4 h

Ethyl acetate
LD50/oral/rat: 4935 mg/kg
LD50/dermal/rat: > 5000 mg/kg
LC50/inhalation/rat: 30 mg/l/4 h

Irritation and corrosivity

Causes serious eye irritation.
Causes skin irritation.

Sensitising effects

Based on available data, the classification criteria are not met.

STOT-single exposure

May cause drowsiness or dizziness. (Ethyl acetate), (Hydrocarbons, C7, n-alkanes, isoalkanes, cycloalkanes), (Hydrocarbons, C6, isoalkanes, < 3% n-hexane), (Cyclohexane), (n-Hexane)

Severe effects after repeated or prolonged exposure

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Additional information on tests

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

Practical experience

Other observations

High concentration of vapours may cause irritation to eyes and respiratory system and produce narcotic effects .
Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

SECTION 12: Ecological information

12.1. Toxicity

Ecological data are not available.
Toxic to aquatic life with long lasting effects.

Hydrocarbons, C7, n-alkanes, isoalkanes, cycloalkanes
LC50/Oncorhynchus mykiss/96 h = 13,4 mg/kg
NOEC/Oncorhynchus mykiss/28 d = 1,534 mg/l
EC50/Daphnia magna/48 h = 3,0 mg/l
NOEC/Daphnia magna/21 h = 0,17 mg/l
ErC50/Pseudokirchneriella subcapitata/48 h = 20 mg/l

Hydrocarbons, C6, isoalkanes, < 3% n-hexane
LC50/Oncorhynchus mykiss/96 h = 18,27 mg/l
NOEC/Oncorhynchus mykiss/28 d = 4,089 mg/l
EC50/Daphnia magna/48 h = 31,9 mg/l
NOEC/Daphnia magna/21 h = 7,138 mg/l
ErC50/Pseudokirchneriella subcapitata/48 h = 3,034 mg/l

Ethyl acetate
LC50/Pimephales promelas/96 h > 230 mg/kg

EC50/Daphnia magna/24 h > 164 mg/l

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

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

Hazardous water pollutant.

Further information

Do not flush into surface water or sanitary sewer system.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Can be incinerated, when in compliance with local regulations.

Where possible recycling is preferred to disposal.

Waste disposal number of waste from residues/unused products

150111 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); metallic packaging containing a dangerous solid porous matrix (for example asbestos), including empty pressure containers
Classified as hazardous waste.

Contaminated packaging

Offer empty spray cans to an established disposal company.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2
14.4. Packing group: -
Hazard label: 2.1



Classification code: 5F
Limited quantity: 1 L / 30 kg
Transport category: 2
Tunnel restriction code: D

Inland waterways transport (ADN)

14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2
14.4. Packing group: -
Hazard label: 2.1



Classification code: 5F
 Limited quantity: 1 L / 30 kg

Marine transport (IMDG)

14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS (Hydrocarbons)
14.3. Transport hazard class(es): 2
14.4. Packing group: -
 Hazard label: 2.1



Marine pollutant: Yes
 Limited quantity: 1 L / 30 kg
 EmS: F-D; S-U

Air transport (ICAO)

14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2.1
14.4. Packing group: -
 Hazard label: 2.1



Limited quantity Passenger: Y203 / 30 kg G
 IATA-packing instructions - Passenger: 203
 IATA-max. quantity - Passenger: 75 kg
 IATA-packing instructions - Cargo: 203
 IATA-max. quantity - Cargo: 150 kg

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes



14.6. Special precautions for user

Handle in accordance with good industrial hygiene and safety practice.

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): 658 g/l

National regulatory information

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

15.2. Chemical safety assessment

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

SECTION 16: Other information

Abbreviations and acronyms

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route

RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses

ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure

IMDG = International Maritime Code for Dangerous Goods

IATA/ICAO = International Air Transport Association / International Civil Aviation Organization

MARPOL = International Convention for the Prevention of Pollution from Ships

IBC-Code = International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

REACH = Registration, Evaluation, Authorization and Restriction of Chemicals

CAS = Chemical Abstract Service

EN = European norm

ISO = International Organization for Standardization

DIN = Deutsche Industrie Norm

PBT = Persistent Bioaccumulative and Toxic

LD = Lethal dose

LC = Lethal concentration

EC = Effect concentration

IC = Median immobilisation concentration or median inhibitory concentration

Relevant R-phrases (Number and full text)

- 11 Highly flammable.
- 12 Extremely flammable.
- 36 Irritating to eyes.
- 38 Irritating to skin.
- 48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- 50 Very toxic to aquatic organisms.
- 51 Toxic to aquatic organisms.
- 53 May cause long-term adverse effects in the aquatic environment.
- 62 Possible risk of impaired fertility.
- 65 Harmful: may cause lung damage if swallowed.
- 66 Repeated exposure may cause skin dryness or cracking.
- 67 Vapours may cause drowsiness and dizziness.

Relevant H- and EUH-phrases (Number and full text)

- H220 Extremely flammable gas.
- H222 Extremely flammable aerosol.
- H225 Highly flammable liquid and vapour.
- H229 Pressurised container: May burst if heated.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- H361f Suspected of damaging fertility.
- H373 May cause damage to organs through prolonged or repeated exposure.
- 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.
- EUH066 Repeated exposure may cause skin dryness or cracking.

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.

Safety Data Sheet according to Regulation (EC) No 1907/2006

REMA TIP TOP AG

Revision date: 19.05.2014

Revision No: 2,01



TIP TOP SOLVENT LIQUID BUFFER SPRAY

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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.)