TIP TOP SOLUTION HL-T

Safety Data Sheet

according to the WHS Regulations
Issue date:29/03/2023 Version: 1.0
SDS No: 00156-0517

SECTION 1: Product identifier

1.1. GHS Product identifier

Product form : Mixture
Product name : TIP TOP SOLUTION HL-T
Product code : 538 1188, 538 1311, 538 1316, 538 1321, 538 1323, 538 1330, 538 1342, 538 1354

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Assembling solution

1.4. Details of manufacturer or importer

Manufacturer
REMA TIP TOP AG
65 Gruber Strasse
Poing 85586
Germany
T +49 (0) 8121 / 707 - 100
info@tiptop.de

Importer
REMA TIP TOP Australia Pty Ltd.
3/20 Worth Street
Chullora NSW 2190
Australia
T +61 2 8755 8400
www.rema-tiptop.com.au

E-mail address of competent person responsible for the SDS: sds@gbk-ingelheim.de

1.5. Emergency phone number

Emergency number : +61-280735031, Infotrac/GBK GmbH-ID: 93591

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical

Classification according to the model Work Health and Safety Regulations (WHS Regulations)

Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2A	H319
Skin sensitisation, Category 1	H317
Germ cell mutagenicity, Category 2	H341
Carcinogenicity, Category 1B	H350
Specific target organ toxicity – Single exposure, Category 3, Narcosis	H336
Hazardous to the aquatic environment – Chronic Hazard, Category 3	H412

2.2. GHS Label elements, including precautionary statements

Hazard pictograms (GHS AU) :

Exclamation mark | Health hazard

Signal word (GHS AU) : Danger
Contains : Trichloroethylene (< 95 %); Colophony (< 1 %)
Hazard statements (GHS AU) : 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 H412 - Harmful to aquatic life with long lasting effects
Precautionary statements (GHS AU)	:	P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P261 - Avoid breathing vapours. P264 - Wash hands, forearms and face thoroughly after handling. P271 - Use only outdoors or in a well-ventilated area. P272 - Contaminated work clothing should not be allowed out of the workplace. P273 - Avoid release to the environment. P280 - Wear protective gloves, protective clothing, eye protection, face protection. P302+P352 - IF ON SKIN: Wash with plenty of water. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P312 - Call a POISON CENTER, a doctor if you feel unwell. P333+P313 - If skin irritation or rash occurs: Get medical attention. P337+P313 - If eye irritation persists: Get medical attention. P362+P364 - Take off contaminated clothing and wash it before reuse. P403+P233 - Store in a well-ventilated place. Keep container tightly closed. P405 - Store locked up. P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : Vapours may form explosive mixture with air.

SECTION 3: Composition and information on ingredients

Comments : Preparation based on :
Trichloroethylene.

Name	CAS-No.	%	Classification according to the model Work Health and Safety Regulations (WHS Regulations)
Trichloroethylene	79-01-6	< 95	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1B, H350 STOT SE 3, H336 Aquatic Chronic 3, H412
Other substances (not contributing to the classification of this product)	-	< 10	Not classified
Zinc oxide	1314-13-2	< 1	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Colophony	8050-09-7	< 1	Skin Sens. 1, H317
Lead(II)-oxide	1317-36-8	< 0,3	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

SECTION 4: First aid measures

4.1. Description of necessary first-aid measures

First-aid measures general : Take off immediately all contaminated clothing. Move the affected person away from the contaminated area. In the event of persistent symptoms receive medical treatment.

First-aid measures after inhalation : Move to fresh air in case of accidental inhalation of vapours or decomposition products. In the event of persistent symptoms receive medical treatment.

First-aid measures after skin contact : Wash off immediately with soap and plenty of water. Get medical advice if skin irritation persists.

First-aid measures after eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult an eye specialist. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Do not induce vomiting. Call a physician immediately. Rinse mouth out with water. Drink plenty of water. Never give anything by mouth to an unconscious person.

4.2. Symptoms caused by exposure

Symptoms/effects after inhalation : May cause drowsiness or dizziness.

Symptoms/effects after skin contact : May cause an allergic skin reaction. Causes skin irritation.

Symptoms/effects after eye contact : Decrease of vision. Causes serious eye irritation.

Chronic symptoms : May cause cancer. Suspected of causing genetic defects.

4.3. Medical attention and special treatment

Treatment : Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media : Product does not burn, fire-extinguishing activities according to surrounding. Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : high volume water jet.

5.2. Specific hazards arising from the chemical

Fire hazard : Non flammable.

Explosion hazard : Product is not explosive.

General measures : In case of vapour formation use adequate respirator. Ensure adequate air ventilation. Use personal protective clothing.

Hazardous decomposition products in case of fire : Fire may produce: Carbon monoxide. Carbon dioxide. Chlorine. Traces of. Phosgene. Hydrogen chloride gas.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Fight fire from safe distance and protected location.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

Hazchem Code : 2Z

Other information : 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

General measures : In case of vapour formation use adequate respirator. Ensure adequate air ventilation. Use personal protective clothing.

6.1.1. For non-emergency personnel

Emergency procedures : Only qualified personnel equipped with suitable protective equipment may intervene.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

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

6.3. Methods and materials for containment and cleaning up

For containment : Dike and contain spill.

Methods for cleaning up : Soak up with inert absorbent material (for example sand, sawdust, a universal binder, silica gel). Shovel or sweep up and put in a closed container for disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep container tightly closed. Ensure good ventilation of the work station. Vapours are heavier than air and may spread along floors. Avoid contact with skin, eyes and clothing.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep in a cool, well-ventilated place away from heat.

Storage conditions : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Incompatible materials : oxidizing materials. Aluminium. Metallic powders. alkali metals. alkaline earth metals.

Information on mixed storage : Keep away from food, drink and animal feeding stuffs.

SECTION 8: Exposure controls and personal protection

8.1. Control parameters - exposure standards

Zinc oxide (1314-13-2)	
Australia - Occupational Exposure Limits	
Local name	Zinc oxide
OES TWA [1]	5 mg/m³ fume 10 mg/m³ dust
OES STEL	10 mg/m³ fume
Remark (AU)	Dust: (a) This value is for inhalable dust containing no asbestos and < 1% crystalline silica.
Regulatory reference	Workplace exposure standards for airborne contaminants (2022)

Carbon black (1333-86-4)	
Australia - Occupational Exposure Limits	
Local name	Carbon black
OES TWA [1]	3 mg/m³
Regulatory reference	Workplace exposure standards for airborne contaminants (2022)

8.2. Biological Monitoring

Monitoring methods : A specific exposure sampling method is not available.

8.3. Engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

8.4. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment : Do not inhale vapours.

Hand protection : 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

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Chemically resistant protective gloves	Viton	6 (> 480 minutes)	≥0.7		EN ISO 374

Eye protection : Eyewash bottle with clean water (EN 15154)

Type	Field of application	Characteristics	Standard
Protective goggles (EN 166)	Liquid splashes may occur		EN 166

Skin and body protection :

Type	Standard
Long sleeved protective clothing	EN ISO 6530

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment

Device	Filter type	Condition	Standard
Respiratory protective device with a gas filter	Type A - High-boiling (>65 °C) organic compounds		EN 14387

Environmental exposure controls : Avoid release to the environment.

Other information : Do not inhale vapour. Avoid contact with skin and eyes. Wash hands before breaks and at the end of workday. Wash hands immediately after handling the product. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

Physical state : Liquid

Appearance : No data available

Colour : Black

Odour : Sweet

Odour threshold : No data available

pH : No data available

pH solution : No data available

Relative evaporation rate (butylacetate=1) : No data available

Melting point / Freezing point : No data available

Boiling point : ≈ 90 °C

Flash point : Not applicable According to PTB instructions, trichloroethylene has no flashpoint; however, vapour and air mixtures are flammable under a stronger energy influx.

Auto-ignition temperature : 410 °C

Flammability (solid, gas) : No data available

Vapour pressure : Vapour pressure: 77 hPa @20°C

Relative density : Relative vapour density at 20°C: 4.54

Density : Density: 1.45 g/cm³ @ 20 °C

Solubility : immiscible. at 20 °C.

Log Pow : No data available

Viscosity, dynamic : 1500 mPa·s

Explosive properties : Product is not explosive.

Oxidising properties : Non oxidizing

Explosive limits : No data available

Minimum ignition energy : No data available

VOC content : < 95 %

Fat solubility : No data available

Additional information : Solvent separation test (%) 0

SECTION 10: Stability and reactivity

Reactivity : No decomposition if stored and applied as directed.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : Reacts with oxidants. alkali metals. alkaline earth metals.
Conditions to avoid : Above 120°C, a thermic decomposition may take place.
Incompatible materials : alkali metals. alkaline earth metals. Bases. Oxidizing agent. aluminium powder (stabilised).
Hazardous decomposition products : Thermal decomposition generates : Chlorine. Traces of. Phosgene. Hydrogen chloride gas. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Zinc oxide (1314-13-2)	
LD50 oral rat	> 5000 mg/kg (OECD 401 method)
LD50 oral	5000 mg/kg
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402 method)
LD50 dermal	5000 mg/kg
LC50 Inhalation - Rat	> 5.7 mg/l/4h
LC50 Inhalation - Rat (Dust/Mist)	5.7 mg/l/4h

Trichloroethylene (79-01-6)	
LD50 oral rat	5400 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 Inhalation - Rat	12500 ppm/4h
ATE AU (oral)	5400 mg/kg bodyweight
ATE AU (vapours)	12500 mg/l/4h
ATE AU (dust,mist)	12500 mg/l/4h

Lead(II)-oxide (1317-36-8)	
ATE AU (oral)	500 mg/kg bodyweight
ATE AU (gases)	4500 ppmv/4h
ATE AU (vapours)	11 mg/l/4h
ATE AU (dust,mist)	1.5 mg/l/4h

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitisation : May cause an allergic skin reaction.
Germ cell mutagenicity : Suspected of causing genetic defects.
Carcinogenicity : May cause cancer.
Reproductive toxicity : Not classified
STOT-single exposure : May cause drowsiness or dizziness.

Trichloroethylene (79-01-6)	
STOT-single exposure	May cause drowsiness or dizziness.

STOT-repeated exposure : Not classified

Lead(II)-oxide (1317-36-8)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

Zinc oxide (1314-13-2)	
Animal studies and expert judgment for classification	False

Colophony (8050-09-7)	
Animal studies and expert judgment for classification	False

Trichloroethylene (79-01-6)	
Animal studies and expert judgment for classification	False

Lead(II)-oxide (1317-36-8)	
Animal studies and expert judgment for classification	False

Other substances (not contributing to the classification of this product)	
Animal studies and expert judgment for classification	False

Potential adverse human health effects and symptoms : Components of the product may be absorbed into the body through the skin. Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product. High concentration of vapours may induce: headache, nausea, dizziness. Risk of lungs oedema. Skin contact or inhalation of solvents contained in this product may cause

SECTION 12: Ecological information

12.1. Ecotoxicity

Hazardous to the aquatic environment, short–term (acute) : Not classified

Hazardous to the aquatic environment, long–term (chronic) : Harmful to aquatic life with long lasting effects.

Other information : Do not flush into surface water or sewer system.

Colophony (8050-09-7)	
EC50 Daphnia 1	4.5 mg/l

Trichloroethylene (79-01-6)	
LC50 fish 1	42.4 mg/l (96 h), Pimephales promelas
EC50 Daphnia 1	47 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Log Pow	2.53

12.2. Persistence and degradability

TIP TOP SOLUTION HL-T	
Persistence and degradability	Not readily biodegradable.

Zinc oxide (1314-13-2)	
Not rapidly degradable	

Colophony (8050-09-7)	
Not rapidly degradable	

Trichloroethylene (79-01-6)	
Persistence and degradability	Not readily biodegradable.
Biodegradation	2.4 % (14 d) (OECD 301C method)

12.3. Bioaccumulative potential

Trichloroethylene (79-01-6)	
Log Pow	2.53
Bioaccumulative potential	Low bio-accumulation can be estimated because of low log Po/w.

12.4. Mobility in soil

Trichloroethylene (79-01-6)	
Ecology - soil	Expected to be highly mobile in soil.
Log Pow	2.53

12.5. Other adverse effects

Ozone : Not classified
Other adverse effects : No additional information available

TIP TOP SOLUTION HL-T	
Fluorinated greenhouse gases	False

Zinc oxide (1314-13-2)	
Fluorinated greenhouse gases	False

Colophony (8050-09-7)	
Fluorinated greenhouse gases	False

Trichloroethylene (79-01-6)	
Fluorinated greenhouse gases	False

Lead(II)-oxide (1317-36-8)	
Fluorinated greenhouse gases	False

Other substances (not contributing to the classification of this product)	
Fluorinated greenhouse gases	False

SECTION 13: Disposal considerations

Waste treatment methods : Recycling is preferred to disposal or incineration. Can be incinerated according to local regulations. Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : 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

14.1. UN number

UN-No. (ADG) : 1710
UN-No. (IMDG) : 1710
UN-No. (IATA) : 1710

14.2. UN Proper Shipping Name

Proper Shipping Name (ADG) : TRICHLOROETHYLENE (SOLUTION)

Proper Shipping Name (IMDG) : TRICHLOROETHYLENE (SOLUTION)
Proper Shipping Name (IATA) : Trichloroethylene (SOLUTION)

14.3. Transport hazard class(es)

ADG

Transport hazard class(es) (ADG) : 6.1
Danger labels (ADG) : 6.1
:

IMDG

Transport hazard class(es) (IMDG) : 6.1
Danger labels (IMDG) : 6.1
:

IATA

Transport hazard class(es) (IATA) : 6.1
Danger labels (IATA) : 6.1
:

14.4. Packing group

Packing group (ADG) : III - Substances presenting low danger
Packing group (IMDG) : III
Packing group (IATA) : III

14.5. Environmental hazards

Marine pollutant : No
Dangerous for the environment : No
Other information : No supplementary information available

14.6. Special precautions for user

Specific storage requirement : No data available
Shock sensitivity : No data available

14.7. Additional information

Other information : No supplementary information available

Transport by road and rail

UN-No. (ADG) : 1710
Limited quantities (ADG) : 5l
Excepted quantities (ADG) : E1
Packing instructions (ADG) : P001, IBC03, LP01
Portable tank and bulk container instructions (ADG) : T4
Portable tank and bulk container special provisions (ADG) : TP1

Transport by sea

UN-No. (IMDG) : 1710
Limited quantities (IMDG) : 5 L

Excepted quantities (IMDG)	:	E1
Packing instructions (IMDG)	:	P001, LP01
IBC packing instructions (IMDG)	:	IBC03
Tank instructions (IMDG)	:	T4
Tank special provisions (IMDG)	:	TP1
EmS-No. (Fire)	:	F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage)	:	S-A - SPILLAGE SCHEDULE Alfa - TOXIC SUBSTANCES
Stowage category (IMDG)	:	A
Stowage and handling (IMDG)	:	SW2
Segregation (IMDG)	:	SGG10

Air transport

UN-No. (IATA)	:	1710
PCA Excepted quantities (IATA)	:	E1
PCA Limited quantities (IATA)	:	Y642
PCA limited quantity max net quantity (IATA)	:	2L
PCA packing instructions (IATA)	:	655
PCA max net quantity (IATA)	:	60L
CAO packing instructions (IATA)	:	663
CAO max net quantity (IATA)	:	220L
ERG code (IATA)	:	6A

14.8. Hazchem or Emergency Action Code

Hazchem Code : 2Z

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

Australian Industrial Chemicals Introduction Scheme (AICIS)

Australian Inventory of Industrial Chemicals (AICIS Inventory) status : All components of this mixture are listed on or exempted from AICIS

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

Relevant Poisons Schedule number : Labelling requirements for SUSMP do not apply to a poison that is packed and sold solely for industrial, laboratory or manufacturing use. However, this product is labelled in accordance with the Safe Work Australia "Code of Practice" for workplace substances.

15.2. International agreements

No additional information available

SECTION 16: Other information

Abbreviations and acronyms : ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
IATA - International Air Transport Association
IMDG - International Maritime Dangerous Goods
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
DOT - Department of Transport
TDG - Transportation of Dangerous Goods
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
GHS - Globally Harmonized System of Classification, Labelling and Packaging of Chemicals
IARC - International Agency for Research on Cancer
vPvB - Very Persistent and Very Bioaccumulative
PBT - Persistent Bioaccumulative Toxic
PNEC - Predicted No-Effect Concentration
CAS - CAS (Chemical Abstracts Service) number
IBC-Code - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ATE - Acute Toxicity Estimate
CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
BCF - Bioconcentration factor
MARPOL 73/78 - MARPOL 73/78: International Convention for the Prevention of Pollution From Ships
ADG - Transport of Australian Dangerous Goods

Other information : Data of sections 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.

Classification	
Skin Irrit. 2	H315
Eye Irrit. 2A	H319
Skin Sens. 1	H317
Muta. 2	H341
Carc. 1B	H350
STOT SE 3	H336
Aquatic Chronic 3	H412

Full text of H-statements	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Carc. 1B	Carcinogenicity, Category 1B
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A

Full text of H-statements	
Muta. 2	Germ cell mutagenicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Narcosis
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H332	Harmful if inhaled
H336	May cause drowsiness or dizziness
H341	Suspected of causing genetic defects
H350	May cause cancer
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
H412	Harmful to aquatic life with long lasting effects