TIP TOP SOLUTION T2-A4

Safety Data Sheet

according to the WHS Regulations
Issue date:21/02/2017 Revision date:14/03/2025 Supersedes:15/10/2024 Version: 2.5
SDS No: 00156-0112

SECTION 1: Product identifier

1.1. GHS Product identifier

Product form	:	Mixture
Product name	:	TIP TOP SOLUTION T2-A4
Product code	:	517 9008

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use	:	Adhesive

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

Supplier
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)

Flammable liquids, Category 2	H225
Serious eye damage/eye irritation, Category 2A	H319
Specific target organ toxicity – Single exposure, Category 3, Narcosis	H336

2.2. GHS Label elements, including precautionary statements

Hazard pictograms (GHS AU) :

Flame Exclamation mark

Signal word (GHS AU)	:	Danger
Contains	:	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 3% normal hexane (< 30 %)
Hazard statements (GHS AU)	:	H225 - Highly flammable liquid and vapour H319 - Causes serious eye irritation H336 - May cause drowsiness or dizziness
Precautionary statements (GHS AU)	:	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 - Keep container tightly closed. P240 - Ground and bond container and receiving equipment. P242 - Use non-sparking tools. P243 - Take action to prevent static discharges. P261 - Avoid breathing vapours. P264 - Wash hands, forearms and face thoroughly after handling.

P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear eye protection, face protection, protective gloves, protective clothing.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with 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 doctor, a POISON CENTER if you feel unwell.
P337+P313 - If eye irritation persists: Get medical attention.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents and container to an approved waste disposal plant.

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 in organic solvents.

Name	CAS-No.	%	Classification according to the model Work Health and Safety Regulations (WHS Regulations)
Ethyl acetate	141-78-6	≥ 55 – < 60	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 3% normal hexane (< 30 %)	92062-15-2	< 30	Flam. Liq. 2, H225 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Silicon dioxide	7631-86-9	≥ 1 – < 3	Not classified
Carbon black	1333-86-4	≥ 1 – < 3	Not classified
Zinc oxide	1314-13-2	< 1	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Other substances (not contributing to the classification of this product)	-	Up to 100%	-

SECTION 4: First aid measures

4.1. Description of necessary first-aid measures

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

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.

First-aid measures after ingestion : Do not induce vomiting without medical advice. Rinse mouth out with water. Drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician immediately.

4.2. Symptoms caused by exposure

Symptoms/effects after inhalation	:	May cause drowsiness or dizziness.
Symptoms/effects after skin contact	:	Repeated exposure may cause skin dryness or cracking.
Symptoms/effects after eye contact	:	Causes serious eye irritation.
Symptoms/effects after ingestion	:	Aspiration hazard.

4.3. Medical attention and special treatment

Treatment	:	Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media	:	Foam. Water spray. Dry powder. Carbon dioxide.
Unsuitable extinguishing media	:	high volume water jet.

5.2. Specific hazards arising from the chemical

Fire hazard	:	Highly flammable liquid and vapour.
Explosion hazard	:	Product is not explosive. Explosive vapour/air mixtures may be formed.
General measures	:	In case of vapour formation use adequate respirator. Ensure adequate air ventilation. Evacuate personnel to a safe area. Use personal protective clothing. Remove ignition sources. Use explosion-proof equipment.
Hazardous decomposition products in case of fire	:	In case of fire: dangerous decomposition products are formed. Carbon oxides (CO, CO2).

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	:	* 3YE
Other information	:	Vapours are heavier than air and may spread along floors. The vapour/air mixture is explosive, even in empty, uncleaned receptacles. 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. Evacuate personnel to a safe area. Use personal protective clothing. Remove ignition sources. Use explosion-proof equipment.

6.1.1. For non-emergency personnel

No additional information available

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 drains/surface waters/groundwater.

6.3. Methods and materials for containment and cleaning up

For containment	:	Dam up the liquid 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	:	Pay attention to anti-explosion protection rules: In case of an explosive atmosphere use only explosion-proof equipment. Take precautionary measures against static discharge. Keep container tightly closed. Vapours are heavier than air and may spread along floors. Ensure good ventilation of the work station. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not smoke.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	:	Pay attention to explosion protection guidelines. Ground/bond container and receiving equipment.
Storage conditions	:	Keep container tightly closed. Store in a well-ventilated place. Keep cool. Keep away from sources of ignition.
Incompatible materials	:	oxidizing materials.
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	10 mg/m³ dust 5 mg/m³ fume
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 (2024)

Silicon dioxide (7631-86-9)	
Australia - Occupational Exposure Limits	
Local name	Silica – Amorphous: Fumed silica
OES TWA	2 mg/m³ respirable dust
Regulatory reference	Workplace exposure standards for airborne contaminants (2024)

Carbon black (1333-86-4)	
Australia - Occupational Exposure Limits	
Local name	Carbon black
OES TWA	3 mg/m³
Regulatory reference	Workplace exposure standards for airborne contaminants (2024)

Ethyl acetate (141-78-6)	
Australia - Occupational Exposure Limits	
Local name	Ethyl acetate (Acetic acid ethyl ester; Acetic ester)
OES TWA	720 mg/m³
	200 ppm
OES STEL	1440 mg/m³

Ethyl acetate (141-78-6)	
	400 ppm
Regulatory reference	Workplace exposure standards for airborne contaminants (2024)

8.2. Biological Monitoring

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

8.3. Engineering controls

Appropriate engineering controls : Pay attention to explosion protection guidelines. Ensure good ventilation of the work station.

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

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	Butyl rubber	4 (> 120 minutes)	≥ 0.7		EN ISO 374
Chemically resistant protective gloves	Nitrile rubber	2 (> 30 minutes)	≥ 0.4		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
Chemical resistant apron	EN 467

Respiratory protection :

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

Environmental exposure controls : Avoid release to the environment.

Other information : Do not inhale vapour. Wash hands before breaks and at the end of workday. Wash hands immediately after handling the product. Do not eat, drink or smoke during use. Treat subsequently with skin cream.

SECTION 9: Physical and chemical properties

Physical state : Liquid
Appearance : No data available
Colour : Black
Odour : characteristic
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 : Melting point: < -20 °C
Boiling point : > 76 °C
Flash point : -18 °C
Auto-ignition temperature : 460 °C
Flammability : No data available
Vapour pressure : Vapour pressure: Not determined

Relative density	:	No data available
Density	:	Density: ≈ 0.9 g/cm³
Solubility	:	immiscible. at 20 °C.
Log Pow	:	No data available
Viscosity, kinematic	:	> 20.5 mm²/s @ 40 °C
Explosive properties	:	Product is not explosive. May form flammable/explosive vapour-air mixture.
Oxidising properties	:	Not oxidising
Explosive limits	:	No data available
Minimum ignition energy	:	No data available
VOC content	:	< 85 %
Fat solubility	:	No data available
Additional information	:	Efflux time > 30s @20°C, 3 DIN/ISO 2431. Solvent content < 85%. 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	:	Reactions with oxidizing agents.
Conditions to avoid	:	Vapour/air-mixtures are explosive at intense warming. Heating can release vapours which can be ignited. To avoid thermal decomposition, do not overheat.
Incompatible materials	:	Oxidizing agent.
Hazardous decomposition products	:	Carbon oxides (CO, CO2).

SECTION 11: Toxicological information

Acute toxicity (oral)	:	Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	:	Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	:	Not classified (Based on available data, the classification criteria are not met)

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

Silicon dioxide (7631-86-9)	
LD50 oral rat	> 5000 mg/kg (OECD 401 method)
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402 method)
LD50 dermal rabbit	> 2000 mg/kg (OECD 402 method)
LC50 Inhalation - Rat	> 2.2 mg/l (OECD 403 method)

Ethyl acetate (141-78-6)	
LD50 oral rat	5620 mg/kg
LD50 dermal rabbit	> 18000 mg/kg
LC50 Inhalation - Rat	56 mg/l/4h

Skin corrosion/irritation	:	Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/irritation	:	Causes serious eye irritation.
Respiratory or skin sensitisation	:	Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	:	Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	:	Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	:	Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	:	May cause drowsiness or dizziness.
STOT-repeated exposure	:	Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	:	Not classified (Based on available data, the classification criteria are not met).

Potential adverse human health effects and symptoms	:	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

SECTION 12: Ecological information

12.1. Ecotoxicity

Hazardous to the aquatic environment, short–term (acute)	:	Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long–term (chronic)	:	Not classified (Based on available data, the classification criteria are not met)
Other information	:	Do not flush into surface water or sewer system.

Zinc oxide (1314-13-2)	
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402 method)
LD50 oral rat	> 5000 mg/kg (OECD 401 method)

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 3% normal hexane (< 30 %) (92062-15-2)	
LC50 fish 1	12 mg/l 96 h, Oncorhynchus mykiss (Rainbow trout)
EC50 Daphnia 1	3 mg/l 48 h, Daphnia magna (Water flea)

Silicon dioxide (7631-86-9)	
LC50 fish 1	> 5000 mg/l Pimephales promelas - (OECD 203 method)
EC50 Daphnia 1	> 5000 mg/l Daphnia magna (Water flea) - (OECD 202 method)
EC50 - Other aquatic organisms [1]	> 2500 g/l activated sludge - (OECD 209 method) - Test method EU C.11
LOEC (chronic)	149.2 mg/l Daphnia magna (Water flea); 21 days
NOEC chronic crustacea	68 mg/l Daphnia magna (Water flea) - (OECD 211 method)
LD50 dermal rabbit	> 2000 mg/kg (OECD 402 method)
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402 method)
LD50 oral rat	> 5000 mg/kg (OECD 401 method)

Ethyl acetate (141-78-6)	
LC50 fish 1	230 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
EC50 Daphnia 1	610 mg/l (Exposure time: 48 h - Species: Daphnia magna)
NOEC chronic crustacea	2.4 mg/l 21 d, Daphnia magna (Water flea)
NOEC chronic algae	> 100 mg/l 72 h, Desmodesmus subspicatus
LD50 dermal rabbit	> 18000 mg/kg
LD50 oral rat	5620 mg/kg

12.2. Persistence and degradability

TIP TOP SOLUTION T2-A4	
Persistence and degradability	No data available

12.3. Bioaccumulative potential

TIP TOP SOLUTION T2-A4	
Bioaccumulative potential	No data available.

12.4. Mobility in soil

TIP TOP SOLUTION T2-A4	
Ecology - soil	No data available.

12.5. Other adverse effects

Ozone : Not classified (Based on available data, the classification criteria are not met)

Other adverse effects : No additional information available

TIP TOP SOLUTION T2-A4	
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 : Packaging that cannot be cleaned should be disposed of like the product. Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse. Empty containers should be taken for local recycling, recovery or waste disposal.

SECTION 14: Transport information

In accordance with ADG / IMDG / IATA

ADG	IMDG	IATA
14.1. UN number		
1133	1133	1133
14.2. UN Proper Shipping Name		
ADHESIVES	ADHESIVES	Adhesives
14.3. Transport hazard class(es)		
3	3	3
14.4. Packing group		
II - Substances presenting medium danger	II	II
14.5. Environmental hazards		
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No

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)	:	1133
Limited quantities (ADG)	:	5l
Excepted quantities (ADG)	:	E2
Packing instructions (ADG)	:	P001, IBC02
Special packing provisions (ADG)	:	PP1
Portable tank and bulk container instructions (ADG)	:	T4
Portable tank and bulk container special provisions (ADG)	:	TP1, TP8

Transport by sea

UN-No. (IMDG)	:	1133
Limited quantities (IMDG)	:	5 L
Excepted quantities (IMDG)	:	E2
Packing instructions (IMDG)	:	P001
Special packing provisions (IMDG)	:	PP1
IBC packing instructions (IMDG)	:	IBC02
Tank instructions (IMDG)	:	T4
Tank special provisions (IMDG)	:	TP1, TP8
Stowage category (IMDG)	:	B

Air transport

UN-No. (IATA)	:	1133
PCA Excepted quantities (IATA)	:	E2
PCA Limited quantities (IATA)	:	Y341
PCA limited quantity max net quantity (IATA)	:	1L
PCA packing instructions (IATA)	:	353
PCA max net quantity (IATA)	:	5L
CAO packing instructions (IATA)	:	364
CAO max net quantity (IATA)	:	60L
Special provisions (IATA)	:	A3
ERG code (IATA)	:	3L

14.8. Hazchem or Emergency Action Code

Hazchem Code	:	* 3YE

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations

Australian Industrial Chemicals Introduction Scheme (AICIS)

Australian Inventory of Industrial Chemicals (AICIS Inventory) status	:	Contains substance(s) listed on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

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.

Australian Pesticides and Veterinary Medicines Authority (APVMA)

No additional information available

15.2. International agreements

No additional information available

SECTION 16: Other information

Revision date	:	14/03/2025

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.

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

Classification	
Flam. Liq. 2	H225
Eye Irrit. 2A	H319
STOT SE 3	H336

Full text of H-statements	
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 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Flam. Liq. 2	Flammable liquids, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Narcosis
H225	Highly flammable liquid and vapour

Full text of H-statements	
H304	May be fatal if swallowed and enters airways
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness
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

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should therefore not be construed as guaranteeing any specific property of the product.