

TIP TOP HARDENER UT-R20

Safety Data Sheet

according to the WHS Regulations

Issue date: 21/08/2015 Revision date: 30/09/2025 Supersedes: 18/12/2023 Version: 2.8

SDS No: 00156-0028



SECTION 1: Product identifier

1.1. GHS Product identifier

Product form : Mixture
Product name : TIP TOP HARDENER UT-R20
Product code : 525 1005, 525 1036, 525 1043, 525 1046, 525 1047, 525 1048

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Hardener (Crosslinker)

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

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

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
Respiratory sensitisation, Category 1	H334
Skin sensitisation, Category 1	H317
Carcinogenicity, Category 2	H351
Specific target organ toxicity – Single exposure, Category 3, Narcosis	H336
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335
Specific target organ toxicity – Repeated exposure, Category 2	H373

2.2. GHS Label elements, including precautionary statements

Hazard pictograms (GHS AU) :



Exclamation mark Health hazard

Signal word (GHS AU) :

Danger

Contains :

Diphenylmethanediisocyanate, isomers and homologues (20 - < 30 %); dichloromethane (60 - < 85 %); Dimethylbis[(1-oxoneodecyl)oxy]stannane (< 0.1 %)

Hazard statements (GHS AU) :

H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation

TIP TOP HARDENER UT-R20

Safety Data Sheet

according to the WHS Regulations
SDS No: 00156-0028

Precautionary statements (GHS AU)	<p>H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled H335 - May cause respiratory irritation H336 - May cause drowsiness or dizziness H351 - Suspected of causing cancer H373 - May cause damage to organs through prolonged or repeated exposure</p> <p>: P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P260 - Do not breathe vapours. P264 - Wash hands 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. P280 - Wear eye protection, face protection, protective gloves, protective clothing. P281 - Use personal protective equipment as required. P285 - In case of inadequate ventilation wear respiratory protection. P302+P352 - IF ON SKIN: Wash with plenty of soap and water. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P304+P341 - IF INHALED: if breathing is difficult, remove victim to fresh air and keep at rest in a position 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. P308+P313 - IF exposed or concerned: Get medical attention. P312 - Call a doctor, a POISON CENTER if you feel unwell. P333+P313 - If skin irritation or rash occurs: Get medical attention. P337+P313 - If eye irritation persists: Get medical attention. P342+P311 - If experiencing respiratory symptoms: Call a doctor, a POISON CENTER. P362 - Take off contaminated clothing. P363 - Wash contaminated clothing 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 an approved waste disposal plant.</p>
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2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition and information on ingredients

Comments : Mixture of the substances listed below with nonhazardous additives.

Name	CAS-No.	%	Classification according to the model Work Health and Safety Regulations (WHS Regulations)
dichloromethane	75-09-2	60 - < 85	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Carc. 2, H351 STOT SE 3, H336
Diphenylmethanediisocyanate, isomers and homologues	9016-87-9	20 - < 30	Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373
Dimethylbis[(1-oxoneodecyl)oxy]stannane	68928-76-7	< 0.1	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Skin Sens. 1A, H317 Aquatic Chronic 3, H412

TIP TOP HARDENER UT-R20

Safety Data Sheet

according to the WHS Regulations
SDS No: 00156-0028

Name	CAS-No.	%	Classification according to the model Work Health and Safety Regulations (WHS Regulations)
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. immediate medical attention.
First-aid measures after skin contact	: Wash off immediately with soap and plenty of water. If skin irritation or rash occurs: Get medical advice/attention.
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. Attention. Beware, danger of aspiration. Call a physician immediately.

4.2. Symptoms caused by exposure

Symptoms/effects after inhalation	: May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: May cause an allergic skin reaction. Causes skin irritation.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Chronic symptoms	: May cause cancer. May cause damage to organs through prolonged or repeated exposure.

4.3. Medical attention and special treatment

Treatment	: Treat symptomatically.
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SECTION 5: Fire-fighting measures

5.1. Extinguishing media

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

5.2. Specific hazards arising from the chemical

Fire hazard	: Practically non flammable liquid. However, it may present a risk in the event of a fire.
Explosion hazard	: Product is not explosive.
General measures	: In case of vapour formation use adequate respirator. Vapours are heavier than air and may spread along floors. Ensure adequate air ventilation. Evacuate personnel to a safe area.
Hazardous decomposition products in case of fire	: Fire may produce: Chlorine. Hydrogen chloride gas. Carbon oxides (CO, CO ₂). Nitrogen oxides. Hydrogen cyanide. Traces of. Phosgene.

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.
Other information	: Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

TIP TOP HARDENER UT-R20

Safety Data Sheet

according to the WHS Regulations
SDS No: 00156-0028

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : In case of vapour formation use adequate respirator. Vapours are heavier than air and may spread along floors. Ensure adequate air ventilation. Evacuate personnel to a safe area.

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. Do not discharge into the subsoil/soil.

6.3. Methods and materials for containment and cleaning up

For containment : Dam up the liquid spill.
Methods for cleaning up : Cover with humid, absorbent material (e.g. sand, sawdust, chemical binder). After approx. 1 hour, collect in disposal drum; do not close (CO₂ development). Shovel or sweep up and put in a closed container for disposal. Container should not be closed gas-tight. Container can be pressurised by carbon dioxide due to reaction with humid air and/or water.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep container tightly closed. Vapours are heavier than air and may spread along floors. Provide local exhaust or general room ventilation. Do not breathe vapours. Keep away from heat and sources of ignition.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed in a dry, cool and well-ventilated place.
Incompatible materials : alcohols. Acids. Strong bases. Water. Amines. alkali metals.
Storage temperature : < 40 °C
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

No additional information available

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)

Hand protection : Splash 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

TIP TOP HARDENER UT-R20

Safety Data Sheet

according to the WHS Regulations
SDS No: 00156-0028

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Chemically resistant protective gloves	Viton	4 (> 120 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 :

Device	Filter type	Condition	Standard
Breathing apparatus with filter	Type AX - Low-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. 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 during use.

SECTION 9: Physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Colour	: amber
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	: No data available
Boiling point	: No data available
Flash point	: > 61 °C
Auto-ignition temperature	: No data available
Flammability	: No data available
Vapour pressure	: Vapour pressure: 453 hPa @ 20 °C
Relative density	: No data available
Density	: Relative density: 0.61 (20 °C)
Solubility	: Water: Reacts with water
Log Pow	: No data available
Explosive properties	: Product is not explosive.
Oxidising properties	: Not oxidising
Explosive limits	: No data available
Minimum ignition energy	: No data available
VOC content	: 441.34 g/l , (72%)
Fat solubility	: No data available

SECTION 10: Stability and reactivity

Reactivity	: No decomposition if stored normally.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Reacts with: Acids. Alkali. alkali metals.
Conditions to avoid	: To avoid thermal decomposition, do not overheat. Container can be pressurised by carbon dioxide due to reaction with humid air and/or water.
Incompatible materials	: Water. alkali metals. alcohols. Amines. acids and bases.

TIP TOP HARDENER UT-R20

Safety Data Sheet

according to the WHS Regulations
SDS No: 00156-0028

Hazardous decomposition products : No hazardous decomposition products known. Thermal decomposition generates : Hydrogen cyanide gas. Chlorine. Hydrogen chloride gas. Carbon oxides (CO, CO₂). Traces of. Nitrogen oxides. Phosgene.

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)

Diphenylmethanediisocyanate, isomers and homologues (9016-87-9)	
LD50 oral	> 10000 mg/kg
LD50 dermal	> 9400 mg/kg
ATE AU (dust,mist)	1.5 mg/l/4h

Dimethylbis[(1-oxoneodecyl)oxy]stannane (68928-76-7)	
LD50 oral rat	892 mg/kg
ATE AU (oral)	500 mg/kg bodyweight

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitisation : May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity : Suspected of causing cancer.
Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

Diphenylmethanediisocyanate, isomers and homologues (9016-87-9)	
Reproductive toxicity	Not classified (Based on available data, the classification criteria are not met)

dichloromethane (75-09-2)	
Reproductive toxicity	Not classified (Based on available data, the classification criteria are not met)

Dimethylbis[(1-oxoneodecyl)oxy]stannane (68928-76-7)	
Reproductive toxicity	Not classified (Based on available data, the classification criteria are not met)

STOT-single exposure : May cause drowsiness or dizziness. May cause respiratory irritation.
STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)
Potential adverse human health effects and symptoms : Inhalation may cause lung oedema. High concentration of vapours may induce: headache, nausea, dizziness. With hypersensitive people, reactions as cough or difficulty of breathing may appear even with tiny concentrations of isocyanates; therefore keep room aerated and ventilated

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.

Dimethylbis[(1-oxoneodecyl)oxy]stannane (68928-76-7)	
LD50 oral rat	892 mg/kg

TIP TOP HARDENER UT-R20

Safety Data Sheet

according to the WHS Regulations
SDS No: 00156-0028

12.2. Persistence and degradability

TIP TOP HARDENER UT-R20

Persistence and degradability	No data available
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12.3. Bioaccumulative potential

TIP TOP HARDENER UT-R20

Bioaccumulative potential	No data available.
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12.4. Mobility in soil

TIP TOP HARDENER UT-R20

Ecology - soil	No data available.
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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

Diphenylmethanediisocyanate, isomers and homologues (9016-87-9)

Fluorinated greenhouse gases	False
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dichloromethane (75-09-2)

Fluorinated greenhouse gases	False
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Dimethylbis[(1-oxonodecyl)oxy]stannane (68928-76-7)

Fluorinated greenhouse gases	False
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SECTION 13: Disposal considerations

Waste treatment methods : Recycling is preferred to disposal or incineration. Can be incinerated according to local regulations.

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		
Not applicable	1593	1593
14.2. UN Proper Shipping Name		
Not applicable	DICHLOROMETHANE (SOLUTION)	Dichloromethane (SOLUTION)
14.3. Transport hazard class(es)		
Not applicable	6.1	6.1
Not applicable		

TIP TOP HARDENER UT-R20

Safety Data Sheet

according to the WHS Regulations
SDS No: 00156-0028

ADG	IMDG	IATA
14.4. Packing group		
Not applicable	III	III
14.5. Environmental hazards		
Not applicable	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

Not applicable

Transport by sea

UN-No. (IMDG) : 1593
Transport regulations (IMDG) : Transport in accordance with section 2.3.2.5 of the IMDG (viscous substance) may be applied
Limited quantities (IMDG) : 5 L
Excepted quantities (IMDG) : E1
Packing instructions (IMDG) : P001, LP01
IBC packing instructions (IMDG) : IBC03
IBC special provisions (IMDG) : B8
Tank instructions (IMDG) : T7
Tank special provisions (IMDG) : TP2
Stowage category (IMDG) : A

Air transport

UN-No. (IATA) : 1593
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) : 6L

14.8. Hazchem or Emergency Action Code

Hazchem Code : Not applicable

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 : All the chemicals contained in this product are listed introductions

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.

TIP TOP HARDENER UT-R20

Safety Data Sheet

according to the WHS Regulations
SDS No: 00156-0028

Australian Pesticides and Veterinary Medicines Authority (APVMA)

No additional information available

New Zealand Inventory of Chemicals (NZIoC)	All substances are listed
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15.2. International agreements

No additional information available

SECTION 16: Other information

Revision date	: 30/09/2025
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	
Skin Irrit. 2	H315
Eye Irrit. 2A	H319
Resp. Sens. 1	H334

TIP TOP HARDENER UT-R20

Safety Data Sheet

according to the WHS Regulations
SDS No: 00156-0028

Abbreviations and acronyms:	
Skin Sens. 1	H317
Carc. 2	H351
STOT SE 3	H336
STOT SE 3	H335
STOT RE 2	H373

Full text of H-statements	
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Carc. 2	Carcinogenicity, Category 2
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1A	Skin sensitisation, category 1A
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Narcosis
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H332	Harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H351	Suspected of causing cancer
H373	May cause damage to organs through prolonged or repeated exposure
H412	Harmful 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.