

# TIP TOP HARDENER UT-R20

## Safety Data Sheet

according to the WHS Regulations

Issue date: 21/08/2015 Revision date: 15/12/2023 Supersedes: 17/01/2022 Version: 2.7

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](mailto:info@tiptop.de)

E-mail address of competent person responsible for the SDS: [sds@gbk-ingelheim.de](mailto: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
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  
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

# TIP TOP HARDENER UT-R20

## Safety Data Sheet

according to the WHS Regulations  
SDS No: 00156-0028

Precautionary statements (GHS AU)	<p>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>
-----------------------------------	--

### 2.3. Other hazards which do not result in classification

No additional information available

## SECTION 3: Composition and information on ingredients

Comments : Preparation with isocyanates.  
and.  
Dichloromethane.

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

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

#### 4.3. Medical attention and special treatment

Treatment	: Treat symptomatically.
-----------	--------------------------

### 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. Traces of. Phosgene. Hydrogen chloride gas. Carbon monoxide. Carbon dioxide. Nitrogen oxides. Hydrogen cyanide.

#### 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.

### 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

# TIP TOP HARDENER UT-R20

## Safety Data Sheet

according to the WHS Regulations  
SDS No: 00156-0028

### 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 (CO<sub>2</sub> 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

Diphenylmethanediisocyanate, isomers and homologues (9016-87-9)	
Australia - Occupational Exposure Limits	
Local name	Isocyanates, all
OES TWA	0.02 mg/m <sup>3</sup> as-NCO
OES STEL	0.07 mg/m <sup>3</sup> as-NCO
Remark (AU)	Sen - Respiratory and/or Skin Sensitiser.
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)

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
Decomposition temperature	: > 120 °C
Flammability (solid, gas)	: No data available
Vapour pressure	: Vapour pressure: 453 hPa @ 20 °C
Relative density	: No data available
Density	: Density: 1.28 g/cm <sup>3</sup> @20°C
Solubility	: Water: Reacts with water
Log Pow	: No data available
Viscosity, kinematic	: Not determined
Viscosity, dynamic	: Not determined
Explosive properties	: Product is not explosive.
Oxidising properties	: Non oxidizing
Explosive limits	: No data available
Minimum ignition energy	: No data available
VOC content	: 923.36 g/l 73%
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.

# TIP TOP HARDENER UT-R20

## Safety Data Sheet

according to the WHS Regulations  
SDS No: 00156-0028

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.
Hazardous decomposition products	: No hazardous decomposition products known. Thermal decomposition generates : Hydrogen cyanide gas. Chlorine. Traces of. Phosgene. Hydrogen chloride gas. Carbon monoxide. Carbon dioxide. Nitrogen oxides.

### SECTION 11: Toxicological information

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

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
Carcinogenicity	: Suspected of causing cancer.
Reproductive toxicity	: Not classified
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
Potential adverse human health effects and symptoms	: Risk of lungs 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
Hazardous to the aquatic environment, long-term (chronic)	: Not classified
Other information	: Do not flush into surface water or sewer system.

#### 12.2. Persistence and degradability

TIP TOP HARDENER UT-R20	
Persistence and degradability	No data available.
Diphenylmethanediisocyanate, isomers and homologues (9016-87-9)	
Not rapidly degradable	

# TIP TOP HARDENER UT-R20

## Safety Data Sheet

according to the WHS Regulations  
SDS No: 00156-0028

### 12.3. Bioaccumulative potential

#### TIP TOP HARDENER UT-R20

Bioaccumulative potential	No data available.
---------------------------	--------------------

### 12.4. Mobility in soil

#### TIP TOP HARDENER UT-R20

Ecology - soil	No data available.
----------------	--------------------

### 12.5. Other adverse effects



Ozone : Not classified  
Other adverse effects : Significantly hazardous to water.

## 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
<b>14.1. UN number</b>		
Not applicable	1593	1593
<b>14.2. UN Proper Shipping Name</b>		
Not applicable	DICHLOROMETHANE (SOLUTION)	Dichloromethane (SOLUTION)
<b>14.3. Transport hazard class(es)</b>		
Not applicable	6.1	6.1
Not applicable		
<b>14.4. Packing group</b>		
Not applicable	III	III
<b>14.5. Environmental hazards</b>		
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

# TIP TOP HARDENER UT-R20

## Safety Data Sheet

according to the WHS Regulations  
SDS No: 00156-0028

### 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
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

### 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 specific for the product in question

#### Australian Industrial Chemicals Introduction Scheme (AICIS)

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

#### 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

Revision date	: 15/12/2023
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.



# TIP TOP HARDENER UT-R20

## Safety Data Sheet

according to the WHS Regulations  
SDS No: 00156-0028

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
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

# TIP TOP HARDENER UT-R20

## Safety Data Sheet

according to the WHS Regulations  
SDS No: 00156-0028

Full text of H-statements	
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.