



**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**TIP TOP REMAFIX H COMP. B**

Revision date: 07.07.2017

Product code: 00359-1014

Page 2 of 9

H412 Harmful to aquatic life with long lasting effects.

**Precautionary statements**

- P202 Do not handle until all safety precautions have been read and understood.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
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 advice/attention.  
P273 Avoid release to the environment.

**Special labelling of certain mixtures**

- EUH205 Contains epoxy constituents. May produce an allergic reaction.  
Restricted to professional users.

**2.3. Other hazards**

According to Regulation (EC) No 1907/2006 (REACH) none of the substances, contained in this product are a PBT / vPvB substance.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Chemical characterization**

Hardener based on aliphatic polyamines

**Hazardous components**

CAS No	Chemical name	Quantity		
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
2855-13-2	3-Aminomethyl-3,5,5-trimethylcyclohexylamine			< 10 %
	220-666-8	612-067-00-9	01-2119514687-32	
	Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Skin Sens. 1, Aquatic Chronic 3; H302 H312 H314 H317 H412			
25513-64-8	Trimethylhexane-1,6-diamine			< 5 %
	247-063-2		01-2119569598-25	
	Acute Tox. 4, Skin Corr. 1B, Skin Sens. 1, Aquatic Chronic 3; H302 H314 H317 H412			
25068-38-6	Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)			< 5 %
	500-033-5	603-074-00-8	01-2119456619-26	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H319 H317 H411			
100-51-6	Benzyl alcohol			< 5 %
	202-859-9	603-057-00-5	01-2119492630-38	
	Acute Tox. 4, Acute Tox. 4; H302 H332			
14808-60-7	Quartz			< 5 %
	238-878-4			
	STOT RE 2; H373			
288-32-4	1,3-Diaza-2,4-cyclopentadiene			< 1 %
	206-019-2		01-2119485825-24	
	Repr. 1B, Acute Tox. 4, Skin Corr. 1C; H360D H302 H314			

Full text of H and EUH statements: see section 16.



## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### TIP TOP REMAFIX H COMP. B

Revision date: 07.07.2017

Product code: 00359-1014

Page 3 of 9

#### SECTION 4: First aid measures

##### 4.1. Description of first aid measures

###### General information

Remove contaminated soaked clothing immediately.  
Call a physician immediately.

###### After inhalation

Move to fresh air in case of accidental inhalation of vapours.  
In the event of symptoms refer for medical treatment.

###### After contact with skin

In case of contact with skin wash off immediately with plenty of water.  
Seek medical treatment immediately.

###### After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
Seek medical treatment by eye specialist.

###### After ingestion

Do not induce vomiting.  
Rinse out mouth and give plenty of water to drink.  
Never give anything by mouth to an unconscious person.  
Summon a doctor immediately.  
Induce vomiting only upon the advice of a physician.  
Attention. Beware, danger of aspiration.

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

Causes severe skin burns and eye damage.  
May cause an allergic skin reaction.  
May damage the unborn child.

##### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptoms.

#### SECTION 5: Firefighting measures

##### 5.1. Extinguishing media

###### Suitable extinguishing media

Alcohol-resistant foam, dry chemical, carbon dioxide (CO<sub>2</sub>), water-spray.

###### Unsuitable extinguishing media

Full water jet.

##### 5.2. Special hazards arising from the substance or mixture

Fire may produce:  
carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>)

##### 5.3. Advice for firefighters

Use breathing apparatus with independent air supply.  
Protective suit.

###### Additional information

Cool containers at risk with water spray jet.  
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

#### SECTION 6: Accidental release measures

##### 6.1. Personal precautions, protective equipment and emergency procedures

In case of vapour formation use respirator.  
Ensure adequate ventilation.



## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### TIP TOP REMAFIX H COMP. B

Revision date: 07.07.2017

Product code: 00359-1014

Page 4 of 9

Use personal protective clothing.

#### **6.2. Environmental precautions**

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

#### **6.3. Methods and material for containment and cleaning up**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).  
Shovel into suitable container for disposal.  
Clean contaminated surface thoroughly.

#### **6.4. Reference to other sections**

Observe protective instructions (see Sections 7 and 8).  
Information for disposal see section 13.

### SECTION 7: Handling and storage

#### **7.1. Precautions for safe handling**

##### **Advice on safe handling**

Keep container tightly closed.  
Handle and open container with care.  
Use only in thoroughly ventilated areas.  
Avoid contact with skin, eyes and clothing.

##### **Advice on protection against fire and explosion**

No special protective measures against fire required.

#### **7.2. Conditions for safe storage, including any incompatibilities**

##### **Requirements for storage rooms and vessels**

Keep container tightly closed in a dry, cool and well-ventilated place.

##### **Advice on storage compatibility**

Incompatible with:  
Oxidizing agents, Amines, Acids and bases.

##### **Further information on storage conditions**

Keep away from food, drink and animal feeding stuffs.

#### **7.3. Specific end use(s)**

Two component repair kit

### SECTION 8: Exposure controls/personal protection

#### **8.1. Control parameters**

##### **Additional advice on limit values**

No data available.

#### **8.2. Exposure controls**

##### **Appropriate engineering controls**

Ensure adequate ventilation, especially in confined areas.

##### **Protective and hygiene measures**

Wash hands before breaks and immediately after handling the product.  
When using do not eat, drink or smoke.  
Avoid contact with skin, eyes and clothing.  
Remove and wash contaminated clothes before re-use.

##### **Eye/face protection**

Tightly fitting goggles (EN 166).  
Eye wash bottle with pure water (EN 15154).



## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### TIP TOP REMAFIX H COMP. B

Revision date: 07.07.2017

Product code: 00359-1014

Page 5 of 9

#### Hand protection

Chemical protective gloves made of nitrile, nitrile/cotton, butyl or neoprene, with a minimum thickness of 0.7 mm, permeation time of approx. 480 minutes.

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.

Pls. find examples in the protective gloves database under: <http://bestglove.com/site/chemrest/>

#### Skin protection

Long sleeved clothing (EN 368).

#### Respiratory protection

In case of insufficient ventilation wear suitable respiratory equipment (gas filter type A) (EN 14387).

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	pasty
Colour:	White
Odour:	Amine like

#### Test method

#### Changes in the physical state

Flash point:	> 100 °C
Lower explosion limits:	n.d.
Ignition temperature:	n.d.
Density (at 20 °C):	2,58 g/cm <sup>3</sup>
Water solubility: (at 20 °C)	Immiscible

### 9.2. Other information

No data available.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No decomposition if stored and applied as directed.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Reactions with acids, alkalis and oxidizing agents  
Reactions with amines.

### 10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat.

### 10.5. Incompatible materials

Amines  
oxidizing agents  
Acids and bases.

### 10.6. Hazardous decomposition products

Carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>).  
ammonia

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**TIP TOP REMAFIX H COMP. B**

Revision date: 07.07.2017

Product code: 00359-1014

Page 6 of 9

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Acute toxicity**

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

**Irritation and corrosivity**

Causes severe skin burns and eye damage.

**Sensitising effects**

May cause an allergic skin reaction. (3-Aminomethyl-3,5,5-trimethylcyclohexylamine; Trimethylhexane-1,6-diamine; Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq 700$ ))

**Carcinogenic/mutagenic/toxic effects for reproduction**

May damage the unborn child. (1,3-Diaza-2,4-cyclopentadiene)  
Germ cell mutagenicity: Based on available data, the classification criteria are not met.  
Carcinogenicity: Based on available data, the classification criteria are not met.

**STOT-single exposure**

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

**STOT-repeated exposure**

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

**Aspiration hazard**

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

**Additional information on tests**

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

**SECTION 12: Ecological information****12.1. Toxicity**

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

**12.2. Persistence and degradability**

No data available.

**12.3. Bioaccumulative potential**

No data available.

**12.4. Mobility in soil**

No data available.

**12.5. Results of PBT and vPvB assessment**

According to Regulation (EC) No 1907/2006 (REACH) none of the substances, contained in this product are a PBT / vPvB substance.

**12.6. Other adverse effects**

Hazardous water pollutant.

**Further information**

Do not flush into surface water or sanitary sewer system.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Advice on disposal**

Where possible recycling is preferred to disposal.  
Can be incinerated, when in compliance with local regulations.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### TIP TOP REMAFIX H COMP. B

Revision date: 07.07.2017

Product code: 00359-1014

Page 7 of 9

**Waste disposal number of waste from residues/unused products**

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other hazardous substances; hazardous waste

**Contaminated packaging**


Contaminated packagings are to be treated like the product itself.

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

**Land transport (ADR/RID)**

**14.1. UN number:** UN 3267  
**14.2. UN proper shipping name:** CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.  
(Trimethylhexane-1,6-diamine,  
3-Aminomethyl-3,5,5-trimethylcyclohexylamine)  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** III  
Hazard label: 8  
  
Classification code: C7  
Limited quantity: 5 L / 30 kg  
Excepted quantity: E1  
Transport category: 3  
Hazard No: 80  
Tunnel restriction code: E

**Inland waterways transport (ADN)**

**14.1. UN number:** UN 3267  
**14.2. UN proper shipping name:** CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.  
(Trimethylhexane-1,6-diamine,  
3-Aminomethyl-3,5,5-trimethylcyclohexylamine)  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** III  
Hazard label: 8  
  
Classification code: C7  
Limited quantity: 5 L / 30 kg  
Excepted quantity: E1

**Marine transport (IMDG)**

**14.1. UN number:** UN 3267  
**14.2. UN proper shipping name:** CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (isophoronediamine and trimethylhexamethylene diamine)  
**14.3. Transport hazard class(es):** 8

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### TIP TOP REMAFIX H COMP. B

Revision date: 07.07.2017

Product code: 00359-1014

Page 8 of 9

**14.4. Packing group:**

III

Hazard label:

8



Marine pollutant:

No

Limited quantity:

5 L / 30 kg

Excepted quantity:

E1

EmS:

F-A, S-B

**Air transport (ICAO-TI/IATA-DGR)****14.1. UN number:**

UN 3267

**14.2. UN proper shipping name:**

CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (isophoronediamine and trimethylhexamethylene diamine, mixture)

**14.3. Transport hazard class(es):**

8

**14.4. Packing group:**

III

Hazard label:

8



Limited quantity Passenger:

1 L

Passenger LQ:

Y841

Excepted quantity:

E1

IATA-packing instructions - Passenger:

852

IATA-max. quantity - Passenger:

5 L

IATA-packing instructions - Cargo:

856

IATA-max. quantity - Cargo:

60 L

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

**14.6. Special precautions for user**

Handle in accordance with good industrial hygiene and safety practice.

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

The transport takes place only in approved and appropriate packaging.

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

2004/42/EC (VOC): 3 - 5 %

**National regulatory information**

Employment restrictions:

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water contaminating class (D):

2 - water contaminating

**Additional information**

Consider Chemical prohibition regulation.

**15.2. Chemical safety assessment**

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



**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**TIP TOP REMAFIX H COMP. B**

Revision date: 07.07.2017

Product code: 00359-1014

Page 9 of 9

**SECTION 16: Other information****Abbreviations and acronyms**

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route  
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses  
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure  
IMDG = International Maritime Code for Dangerous Goods  
IATA/ICAO = International Air Transport Association / International Civil Aviation Organization  
MARPOL = International Convention for the Prevention of Pollution from Ships  
IBC-Code = International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
REACH = Registration, Evaluation, Authorization and Restriction of Chemicals  
CAS = Chemical Abstract Service  
EN = European norm  
ISO = International Organization for Standardization  
DIN = Deutsche Industrie Norm  
PBT = Persistent Bioaccumulative and Toxic  
vPvB = Very Persistent and very Bio-accumulative  
LD = Lethal dose  
LC = Lethal concentration  
EC = Effect concentration  
IC = Median immobilisation concentration or median inhibitory concentration

**Relevant H and EUH statements (number and full text)**

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H360D	May damage the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH205	Contains epoxy constituents. May produce an allergic reaction.

**Further Information**

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge.

The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

(n.a. = not applicable; n.d. = not determined)

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*