

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

TIP TOP REMAFIX H COMP. B

Revision date: 03/31/2022

Product code: 00359-1014

Page 1 of 10

1. Identification**Product identifier**

TIP TOP REMAFIX H COMP. B

Art.-No.

525 0556, 525 0563

Recommended use of the chemical and restrictions on use**Use of the substance/mixture**

Two component repair kit

Details of the supplier of the safety data sheet

Company name: TIP TOP Oberflächenschutz Elbe GmbH

Street: Heuweg 4

Place: D-06886 Wittenberg

Telephone: +49(0)3491/635-50

Telefax: +49(0)3491/635-552

Responsible Department: Responsible for the safety data sheet: sds@gbk-ingelheim.de

Emergency phone number: INTERNATIONAL: +49 - (0) 6132 - 84463, GBK GmbH (24h - 7d/w - 365d/a)**2. Hazard(s) identification****Classification of the chemical****29 CFR Part 1910.1200**

Skin corrosion/irritation: Skin Corr. 1B

Serious eye damage/eye irritation: Eye Dam. 1

Respiratory or skin sensitization: Skin Sens. 1

Reproductive toxicity: Repr. 1B

Specific target organ toxicity repeated or prolonged exposure: STOT RE 2

Hazardous to the aquatic environment: Aquatic Chronic 3

Label elements**29 CFR Part 1910.1200****Signal word:** Danger**Pictograms:****Hazard statements**

Causes severe skin burns and eye damage

May cause an allergic skin reaction

May damage fertility or the unborn child

May cause damage to organs through prolonged or repeated exposure

Harmful to aquatic life with long lasting effects

Precautionary statements

Do not handle until all safety precautions have been read and understood.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Rinse mouth. Do NOT induce vomiting.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If exposed or concerned: Get medical advice/attention.

Avoid release to the environment.

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

TIP TOP REMAFIX H COMP. B

Revision date: 03/31/2022

Product code: 00359-1014

Page 2 of 10

Hazards not otherwise classified

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

3. Composition/information on ingredients**Mixtures****Chemical characterization**

Hardener based on aliphatic polyamines

Hazardous components

| CAS No | Components | Quantity |
|------------|---|----------|
| 2855-13-2 | 3-Aminomethyl-3,5,5-trimethylcyclohexylamine | < 10 % |
| 25513-64-8 | Trimethylhexane-1,6-diamine | < 5 % |
| 25068-38-6 | Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700) | < 5 % |
| 100-51-6 | Benzyl alcohol | < 5 % |
| 14808-60-7 | Quartz | < 5 % |
| 288-32-4 | 1,3-Diaza-2,4-cyclopentadiene | < 1 % |

4. First-aid measures**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 of aspiration danger.

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.
May cause damage to organs through prolonged or repeated exposure.

Indication of any immediate medical attention and special treatment needed

Treat symptoms.

5. Fire-fighting measures

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

TIP TOP REMAFIX H COMP. B

Revision date: 03/31/2022

Product code: 00359-1014

Page 3 of 10

Extinguishing media**Suitable extinguishing media**Alcohol-resistant foam, dry chemical, carbon dioxide (CO₂), water-spray.**Unsuitable extinguishing media**

Full water jet.

Specific hazards arising from the chemical

Fire may produce:

Carbon monoxide (CO), carbon dioxide (CO₂) and nitrogen oxides (NO_x).**Special protective equipment and precautions for fire-fighters**

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.

6. Accidental release measures**Personal precautions, protective equipment and emergency procedures****General advice**

Ensure adequate ventilation.

Keep away noninvolved persons.

For non-emergency personnel

Do not breathe vapours.

Avoid contact with skin, eyes and clothing.

For emergency responders

In case of vapour formation use respirator.

Use personal protective clothing.

Environmental precautions

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

Do not discharge into the subsoil/soil.

Methods and material for containment and cleaning up**For containment**

Prevent spread over a wide area (e.g. by containment or oil barriers).

For 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.

Reference to other sections

Observe protective instructions (see Sections 7 and 8).

Information for disposal look up chapter 13.

7. Handling and storage**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.

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

TIP TOP REMAFIX H COMP. B

Revision date: 03/31/2022

Product code: 00359-1014

Page 4 of 10

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.

Hints on joint storage

Incompatible with:

Oxidizing agents, Amines, Acids and bases.

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

8. Exposure controls/personal protection**Control parameters****Exposure limits**

| CAS No. | Substance | ppm | mg/m ³ | f/cc | Category | Origin |
|------------|--|-------|-------------------|------|-----------|------------|
| 14808-60-7 | Silica, crystalline - alpha-quartz (respirable fraction) | | 0.025 | | TWA (8 h) | ACGIH-2021 |
| 14808-60-7 | Silica, crystalline (as respirable dust) | - | 0.05 | | TWA (8 h) | REL |
| 14808-60-7 | Silica, crystalline quartz, respirable dust | (Z-3) | (Z-3) | | TWA (8 h) | PEL |

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.

Eye wash bottle with pure water.

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 GISBAU protective gloves database under:

<http://www.wingisonline.de/handschuhe/frmMain.aspx>**Skin protection**

Long sleeved clothing.

Respiratory protection

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

9. Physical and chemical properties**Information on basic physical and chemical properties**

| | |
|-----------------|------------|
| Physical state: | Pasty |
| Color: | White |
| Odor: | Amine like |

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

TIP TOP REMAFIX H COMP. B

Revision date: 03/31/2022

Product code: 00359-1014

Page 5 of 10

pH-Value: n.d.

Changes in the physical state

Melting point/freezing point: n.d.

Boiling point or initial boiling point and boiling range: n.d.

Sublimation point: n.a.

Softening point: n.d.

Flash point: > 100 °C

Flammability

Solid/liquid: n.a.

Gas: n.a.

Explosive properties

The product is not explosive.

Lower explosion limits: n.d.

Upper explosion limits: n.d.

Auto-ignition temperature: n.d.

Self-ignition temperature

Solid: n.a.

Gas: n.a.

Decomposition temperature: n.d.

Oxidizing properties

Not oxidising.

Vapor pressure: n.d.

Density (at 20 °C): 2,58 g/cm³

Bulk density: n.a.

Water solubility:
(at 20 °C) Immiscible**Solubility in other solvents**

n.d.

Partition coefficient n-octanol/water: n.d.

Viscosity / dynamic: n.d.

Viscosity / kinematic: n.d.

Flow time: n.d.

Relative vapour density: n.d.

Evaporation rate: n.d.

Solvent separation test: n.d.

Solvent content: 0 %

Other information

No data available

10. Stability and reactivity**Reactivity**

No decomposition if stored and applied as directed.

Chemical stability

Stability: Stable

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

TIP TOP REMAFIX H COMP. B

Revision date: 03/31/2022

Product code: 00359-1014

Page 6 of 10

Stable under normal conditions.

Possibility of hazardous reactions

Hazardous reactions: Will not occur
Reactions with acids, alkalies and oxidizing agents.
Reactions with amines.

Conditions to avoid

To avoid thermal decomposition, do not overheat.

Incompatible materials

Amines
Oxidizing agents
Acids and bases

Hazardous decomposition products

No hazardous decomposition products known.
Fire may produce:
Carbon monoxide (CO), carbon dioxide (CO₂) and nitrogen oxides (NO_x)
Ammonia

11. Toxicological information**Information on toxicological effects****Route(s) of Entry**

Skin and eye contact, inhalation and ingestion.

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
Causes serious eye damage

Sensitizing 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 <= 700))

Carcinogenic/mutagenic/toxic effects for reproduction

May damage fertility or 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.

Specific target organ toxicity (STOT) - single exposure

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

Specific target organ toxicity (STOT) - repeated exposure

May cause damage to organs through prolonged or repeated exposure (Quartz)

Carcinogenicity (OSHA): No ingredient of this mixture is listed.

Carcinogenicity (IARC): Silica dust, crystalline, in the form of quartz or cristobalite (CAS 14808-60-7) is listed in group 1.

Carcinogenicity (NTP): No ingredient of this mixture is listed.

Aspiration hazard

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

Additional information on tests

This product is classified in accordance with the GHS regulations.

Information on other hazards

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

TIP TOP REMAFIX H COMP. B

Revision date: 03/31/2022

Product code: 00359-1014

Page 7 of 10

Endocrine disrupting properties

No data available

12. Ecological information**Ecotoxicity**

Ecological data are not available.

Harmful to aquatic life with long lasting effects.

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Other adverse effects

Hazardous water pollutant.

Further information

Do not flush into surface water or sanitary sewer system.

13. Disposal considerations**Waste treatment methods****Disposal recommendations**

Where possible recycling is preferred to disposal.

Can be incinerated, when in compliance with local regulations.

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.

14. Transport information**US DOT 49 CFR 172.101****UN number or ID number:**

UN 3267

Proper shipping name:CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.
(Trimethylhexane-1,6-diamine,
3-Aminomethyl-3,5,5-trimethylcyclohexylamine)**Transport hazard class(es):**

8

Packing group:

III

Hazard label:

8

**Marine transport (IMDG)****UN number:**

UN 3267

UN proper shipping name:

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

Safety Data Sheet

according to 29 CFR 1910.1200(g)

TIP TOP REMAFIX H COMP. B

Revision date: 03/31/2022

Product code: 00359-1014

Page 8 of 10

Transport hazard class(es):

8

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)**UN number:**

UN 3267

UN proper shipping name:

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

Transport hazard class(es):

8

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

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

Special precautions for user

Handle in accordance with good industrial hygiene and safety practice.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

The transport takes place only in approved and appropriate packaging.

15. Regulatory information

U.S. Regulations**National regulatory information**

SARA Section 311/312 Hazards:

3-Aminomethyl-3,5,5-trimethylcyclohexylamine (2855-13-2): Immediate (acute) health hazard

Trimethylhexane-1,6-diamine (25513-64-8): Immediate (acute) health hazard

Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700) (25068-38-6): Immediate (acute) health hazard

Benzyl alcohol (100-51-6): Immediate (acute) health hazard

Quartz (14808-60-7): Delayed (chronic) health hazard

1,3-Diaza-2,4-cyclopentadiene (288-32-4): Immediate (acute) health hazard

State Regulations**Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)**

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

TIP TOP REMAFIX H COMP. B

Revision date: 03/31/2022

Product code: 00359-1014

Page 9 of 10

other reproductive harm.

Additional information

Consider Chemical prohibition regulation.

16. Other information**Hazardous Materials Information Label (HMIS)**

Health: *2
Flammability: 0
Physical Hazard: 0

NFPA Hazard Ratings

Health: 2
Flammability: 0
Reactivity: 0
Unique Hazard:

**Changes**

Revision date: 03/31/2022
Revision No: 1,3

This data sheet contains changes from the previous version in section(s): 2,4,6,8,10,11,16.

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

Other data

The information in this document is based on the present state of knowledge and is applicable to the product with regard to appropriate safety precautions.
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)



Safety Data Sheet

according to 29 CFR 1910.1200(g)

TIP TOP REMAFIX H COMP. B

Revision date: 03/31/2022

Product code: 00359-1014

Page 10 of 10

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