SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

TIP TOP TTSEAL XXL

Art.-No.

514 9030, 593 1252, 593 1253, 593 1260

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

Tyre sealing material

1.3. Details of the supplier of the safety data sheet

Company name:	REMA TIP TOP AG
Street:	Gruber Strasse 65
Place:	D-85586 Poing
Telephone:	+49 (0) 8121 / 707 - 100
Responsible Department:	Responsible for the safety data sheet: sds@gbk-ingelheim.de

1.4. Emergency telephone number:

INTERNATIONAL: +49 - (0) 6132 - 84463, GBK GmbH (24h - 7d/w - 365d/a)
Public Poisons Information Line: +353 (0) 1 809 2166 (8am-10pm 7 days a week)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Acute Tox. 4; H302
Skin Sens. 1; H317
STOT RE 2; H373

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

Ethane-1,2-diol
Sodium nitrite
1,2-Benzisothiazol-3(2H)-one
2-methyl-2H-isothiazol-3-one

Signal word: Warning

Pictograms:

Hazard statements

H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H373	May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P260	Do not breathe vapour.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330	Rinse mouth.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P501	Dispose of contents/container to in accordance with local and national regulations.

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.
The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Aqueous solution

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
107-21-1	Ethane-1,2-diol			< 35 %
	203-473-3	603-027-00-1	01-2119456816-28	
	Acute Tox. 4, STOT RE 2; H302 H373			
7632-00-0	Sodium nitrite			< 1 %
	231-555-9	007-010-00-4	01-2119471863-27	
	Ox. Sol. 3, Acute Tox. 3, Eye Irrit. 2, Aquatic Acute 1; H272 H301 H319 H400			
2682-20-4	2-methyl-2H-isothiazol-3-one			< 0,1 %
	220-239-6	613-326-00-9	01-2120764690-50	
	Acute Tox. 2, Acute Tox. 3, Acute Tox. 3, Skin Corr. 1B, Eye Dam. 1, Skin Sens. 1A, Aquatic Acute 1, Aquatic Chronic 1; H330 H311 H301 H314 H318 H317 H400 H410 EUH071			
2634-33-5	1,2-benzisothiazol-3(2H)-one			< 0,036 %
	220-120-9	613-088-00-6	01-2120761540-60	
	Acute Tox. 2, Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Skin Sens. 1A, Aquatic Acute 1, Aquatic Chronic 1; H330 H302 H315 H318 H317 H400 H410			

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

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
107-21-1	203-473-3	Ethane-1,2-diol	< 35 %
	dermal: LD50 = 9530 mg/kg; oral: LD50 = 5840 mg/kg		
7632-00-0	231-555-9	Sodium nitrite	< 1 %
	oral: LD50 = 180 mg/kg		
2682-20-4	220-239-6	2-methyl-2H-isothiazol-3-one	< 0,1 %
	inhalation: ATE = 0,5 mg/l (vapours); inhalation: ATE = 0,05 mg/l (dusts or mists); dermal: ATE = 300 mg/kg; oral: ATE = 100 mg/kg Skin Sens. 1A; H317: >= 0,0015 - 100 Aquatic Acute 1; H400: M=10 Aquatic Chronic 1; H410: M=1		
2634-33-5	220-120-9	1,2-benzisothiazol-3(2H)-one	< 0,036 %
	inhalation: ATE 0,21 mg/l (dusts or mists); oral: ATE 450 mg/kg Skin Sens. 1A; H317: >= 0,036 - 100 Aquatic Acute 1; H400: M=1 Aquatic Chronic 1; H410: M=1		

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated soaked clothing immediately.
In the event of persistent symptoms receive medical treatment.

After inhalation

Move to fresh air in case of accidental inhalation of vapours or decomposition products.

After contact with skin

Wash off with soap and plenty of water.

After contact with eyes

If eye irritation persists, consult a specialist.
Rinse immediately with plenty of water, also under the eyelids.

After ingestion

Induce vomiting only upon the advice of a physician.
Immediately give plenty of water (if possible charcoal slurry).
Summon a doctor immediately.

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

Harmful if swallowed.
May cause damage to organs through prolonged or repeated exposure. [Kidney]
May cause an allergic skin reaction.

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

Foam, carbon dioxide (CO_2), dry chemical, water-spray.
Sand

Unsuitable extinguishing media

Full water jet.

5.2. Special hazards arising from the substance or mixture

Fire may produce:

Carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx).

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

General advice

Ensure adequate ventilation.
Keep away noninvolved persons.

For non-emergency personnel

Avoid contact with skin, eyes and clothing.

For emergency responders

Use personal protective clothing.
In case of vapour formation use respirator.

6.2. Environmental precautions

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

6.3. 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.

6.4. Reference to other sections

Observe protective instructions (see Sections 7 and 8).
Informations for disposal look up chapter 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Keep container tightly closed.
Avoid contact with the skin and the eyes.

Advice on protection against fire and explosion

No special protective measures against fire required.

Advice on general occupational hygiene

Avoid contact with eyes and skin.
Wash hands before breaks and at the end of workday.
When using do not eat, drink or smoke.
Remove and wash contaminated clothes before re-use.

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.

Hints on joint storage

Incompatible with oxidizing agents.

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

Tyre sealing material

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

CAS No	Substance	ppm	mg/m³	fib/cm³	Category	Origin
107-21-1	(OLD) 1,2-Dihydroxyethane, particulate	-	10		TWA (8 h)	

8.2. Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face protection

Safety goggles with side protection (EN 166).

Hand protection

Protective gloves resistant to chemicals made off natural-rubber latex, Minimum coat thickness 0.6 mm, Permeation resistance (wear duration) approx. 480 minutes, i.e. protective glove <Lapren 706> made by www.kcl.de.
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.

Skin protection

Long sleeved clothing (DIN EN ISO 6530)

Respiratory protection

No personal respiratory protective equipment normally required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Viscous
Colour:	Black
Odour:	Mild

Changes in the physical state

Melting point/freezing point:	< 0 °C
Boiling point or initial boiling point and boiling range:	approx. 100 °C
Sublimation point:	n.a.
Softening point:	n. d.
Flash point:	n.a.

Flammability

Solid/liquid:	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.
pH-Value:	8 - 10
Viscosity / dynamic:	n. d.
Viscosity / kinematic:	n. d.
Flow time:	n. d.
Water solubility: (at 20 °C)	Partially miscible
Solubility in other solvents	
n. d.	
Partition coefficient n-octanol/water:	n. d.
Vapour pressure:	approx. 23 hPa
Density (at 20 °C):	1,1 g/cm³
Bulk density:	n.a.
Relative vapour density:	n. d.

9.2. Other information

Information with regard to physical hazard classes

Oxidizing properties

Not oxidising.

Other safety characteristics

Solvent separation test:	n. d.
Solvent content:	< 40 %
Evaporation rate:	n. d.

Further 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 oxidising agents.

10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat.
Heating can release vapours which can be ignited.

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Harmful if swallowed.
No toxical dates available.
Sodium nitrite
LD50/oral/rat: 180 mg/kg
Ethane-1,2-diol
LD50/oral/rat: 5840 mg/kg
LD50/dermal/rabbit: 9530 mg/kg

ATEmix calculated

ATE (oral) 1401 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

Irritation and corrosivity

Skin corrosion/irritation: Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Sensitising effects

May cause an allergic skin reaction. (2-methyl-2H-isothiazol-3-one; 1,2-benzisothiazol-3(2H)-one)

Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: 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

May cause damage to organs through prolonged or repeated exposure. (Ethane-1,2-diol)

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.

11.2. Information on other hazards

Endocrine disrupting properties

No data available

Other information

Inhalation of vapours may cause mild irritation to the mucous membrane.
Repeated or prolonged exposure may cause irritation of eyes and skin.
May cause sensitization of susceptible persons by skin contact.

SECTION 12: Ecological information

12.1. Toxicity

Ecological dates are not available.

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

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. 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.

12.7. Other adverse effects

Slightly water hazardous.

Further information

Ecological injuries are not known or expected under normal use.
Do not flush into surface water or sanitary sewer system.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

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

List of Wastes Code - 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

Empty containers should be taken for local recycling, recovery or waste disposal.
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 or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

14.7. Maritime transport in bulk according to IMO instruments

No dangerous good in sense of this transport regulation.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

Directive 2004/42/EC on VOC in paints and varnishes:	0 %
Information according to Directive 2012/18/EU (SEVESO III):	Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Employment restrictions:	Observe restrictions to employment for juveniles 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 hazard class (D):	1 - slightly hazardous to water

15.2. Chemical safety assessment

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

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 3.

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

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Acute Tox. 4; H302	Calculation method
Skin Sens. 1; H317	Calculation method
STOT RE 2; H373	Calculation method

Relevant H and EUH statements (number and full text)

H272	May intensify fire; oxidiser.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.

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 relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)