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

#### 1.1. Product identifier

TIP TOP SOLVENT T-120 Art.-No.

590 3220, 590 3230, 590 3240

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

#### Use of the substance/mixture

Processing agent

#### 1.3. Details of the supplier of the safety data sheet

Company name:	TIP TOP Oberflaechenschutz 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
<u>1.4. Emergency telephone</u> number:	INTERNATIONAL: +49 - (0) 6132 - 84463, GBK GmbH (24h - 7d/w - 365d/a) England and Wales: NHS Direct - 0845 4647; Scotland: NHS 24 - 08454 24 24 24

#### **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture according to 1272/2008/EC

Hazard categories: Flammable liquid: Flam. Liq. 2 Serious eye damage/eye irritation: Eye Irrit. 2 Specific target organ toxicity - single exposure: STOT SE 3 Hazard Statements: Highly flammable liquid and vapour. Causes serious eye irritation. May cause drowsiness or dizziness.

#### 2.2. Label elements

# Hazard components for labelling Butanone

Signal word:

Pictograms:



#### Hazard statements

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

Precautionary stater	ments	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No	
	smoking.	
P261	Avoid breathing vapour.	
P280	Wear protective gloves/protective clothing/eye protection/face protection.	
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.	
P304+P341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.	
P312	Call a POISON CENTER/doctor if you feel unwell.	
Special labelling of certain mixtures		

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#### 2.3. Other hazards

Vapours may form explosive mixture with air.

#### **SECTION 3: Composition/information on ingredients**

#### 3.2. Mixtures

**Chemical characterization** 

Preparation in butanone

#### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according	to Regulation (EC) No. 1272/2008 [C	LP]	
78-93-3	Butanone		< 100 %	
	201-159-0	606-002-00-3	01-2119457290-43	
	Flam. Liq. 2, Eye Irrit. 2	, STOT SE 3; H225 H319 H336 EUH	066	

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

#### **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

#### **General information**

Remove contaminated soaked clothing immediately.

If you feel unwell, seek medical advice.

#### After inhalation

Move to fresh air in case of accidental inhalation of vapours or decomposition products. Refer for medical treatment.

#### After contact with skin

Wash off with soap and plenty of water. Consult a doctor if skin irritation persists.

#### 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. Summon a doctor immediately. Rinse out mouth and give plenty of water to drink. Never give anything by mouth to an unconscious person. Induce vomiting only upon the advice of a physician.

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

Causes serious eye irritation. May cause drowsiness or dizziness. Repeated exposure may cause skin.

Repeated exposure may cause skin dryness or cracking.

#### 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 (CO2), water-spray.

#### Unsuitable extinguishing media

Full water jet.

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

Fire may produce: Carbon monoxide and carbon dioxide

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#### 5.3. Advice for firefighters

Use breathing apparatus with independent air supply. Protective suit.

#### Additional information

Vapours are heavier than air and spread along ground. The vapour/air mixture is explosive, even in empty, uncleaned receptacles. 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. Use personal protective clothing. Keep away sources of ignition.

#### 6.2. Environmental precautions

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

#### 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.

#### 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. When using do not eat, drink or smoke. Use only in thoroughly ventilated areas. Avoid contact with skin, eyes and clothing.

#### Advice on protection against fire and explosion

Keep away from heat and sources of ignition. Do not smoke. Take precautionary measures against static discharges. Use only explosion-proof equipment.

#### 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.

#### Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

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

Processing agent

#### **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

#### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
78-93-3	Butan-2-one (methyl ethyl ketone)	200	600		TWA (8 h)	WEL
		300	899		STEL (15 min)	WEL

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#### **Biological Monitoring Guidance Values (EH40)**

CAS No	Substance	Parameter	Value	Test material	Sampling time
78-93-3	Butan-2-one	butan-2-one	70 µmol/L	urine	Post shift

#### 8.2. Exposure controls

#### Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas.

#### Protective and hygiene measures

Avoid contact with eyes and skin.

Wash hands before breaks and immediately after handling the product.

When using do not eat, drink or smoke.

Remove and wash contaminated clothes before re-use.

Do not inhale vapours.

#### Eye/face protection

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

#### 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

9.1. Information on basic physical and chemica	al properties
Physical state:	Liquid
Colour:	clear
Odour:	Like ketone
Changes in the physical state	
Melting point:	- 86 °C
Initial boiling point and boiling range:	80 °C
Flash point:	- 9 °C
Explosive properties	The product is considered non-explosive; nevertheless explosive vapour/air mixture can be generated.
Lower explosion limits:	1,5 vol. %
Upper explosion limits:	11,5 vol. %
Ignition temperature:	404 °C
Vapour pressure: (at 20 °C)	101 hPa
Density (at 20 °C):	0,805 g/cm³
Water solubility: (at 20 °C)	250 g/L
Viscosity / dynamic: (at 20 °C)	0,40 mPa·s
Solvent content:	< 100 %
9.2. Other information	
Surface tension: 24,8 mN/m (20°C)	

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#### **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 oxidizing agents. May form explosive peroxides

#### 10.4. Conditions to avoid

Vapour/air mixtures are explosive at intensive warming. Heating can release vapours which can be ignited.

#### 10.5. Incompatible materials

oxidizing agents

#### 10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide.

#### **SECTION 11: Toxicological information**

#### 11.1. Information on toxicological effects

#### Acute toxicity

Based on available data, the classification criteria are not met. Butanone LD50/oral/rat: > 2000 mg/kg [OECD 423] LD50/dermal/rabbit: > 5000 mg/kg [OECD 402] LC50/inhalation/rat: 34 mg/l/4h

#### Irritation and corrosivity

Causes serious eye irritation. Skin irritation Not classified.

#### Sensitising effects

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

#### STOT-single exposure

May cause drowsiness or dizziness. (Butanone)

Severe effects after repeated or prolonged exposure Repeated exposure may cause skin dryness or cracking.

#### Carcinogenic/mutagenic/toxic effects for reproduction 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.

#### Practical experience

#### Other observations

Concentration above the admissible concentration at the workplace may cause dizziness, headache and inebriation.

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

#### **SECTION 12: Ecological information**

#### 12.1. Toxicity

Butanone

LC50/Pimephales promelas/96 h = 2990 mg/l [OECD 203] EC50/Daphnia magna/48 h = 308 mg/l [OECD 202] EC50/Pseudokirchneriela subcapitata/72 h = 1972 mg/l [OECD 201] **12.2. Persistence and degradability** 

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#### Butanone

Biodegradable (OECD): 98% [28d, OECD 301 D] Readily biodegradable (to OECD criteria).

#### 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

Low hazard to waters.

#### **Further information**

Do not flush into surface water or sanitary sewer system.

#### **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

#### Advice on disposal

Can be disposed of as a solid waste or burned in a suitable installation subject to local regulations. Where possible recycling is preferred to disposal.

#### 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 Classified as 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)

<u>14.1. UN number:</u> 14.2. UN proper shipping name: 14.3. Transport hazard class(es):	UN 1193 ETHYL METHYL KETONE (METHYL ETHYLKETONE) 3
14.4. Packing group:	II
Hazard label:	3
Classification code:	F1
Limited quantity:	1 L / 30 kg
Excepted quantity:	E2
Transport category:	2
Hazard No:	33
Tunnel restriction code:	D/E
Inland waterways transport (ADN)	
<u>14.1. UN number:</u>	UN 1193
14.2. UN proper shipping name:	ETHYL METHYL KETONE (METHYL ETHYLKETONE)
14.3. Transport hazard class(es):	3
14.4. Packing group:	II

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Hazard label:	3
Classification code:	F1
Limited quantity:	1 L / 30 kg
Excepted quantity:	E2
Marine transport (IMDG)	
<u>14.1. UN number:</u>	
14.2. UN proper shipping name:	ETHYL METHYL KETONE (METHYL ETHYLKETONE)
14.3. Transport hazard class(es):	3
14.4. Packing group: Hazard label:	
Hazard label.	3
	3
Marine pollutant:	No
Limited quantity:	1 L / 30 kg E2
Excepted quantity: EmS:	EZ F-E, S-D
Air transport (ICAO)	,
<u>14.1. UN number:</u>	UN 1193
14.2. UN proper shipping name:	ETHYL METHYL KETONE (METHYL ETHYLKETONE)
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3
Limited quantity Passenger:	1 L
Passenger LQ:	Y341
Excepted quantity:	E2
IATA-packing instructions - Passenger: IATA-max. quantity - Passenger:	353 5 L
IATA-max. quantity - Passenger. IATA-packing instructions - Cargo:	364
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 h	nygiene and safety practice.
<b>14.7. Transport in bulk according to Anne</b> The transport takes place only in approved	
SECTION 15: Regulatory information	
15.1. Safety, health and environmental reg	gulations/legislation specific for the substance or mixture
EU regulatory information	
2004/42/EC (VOC):	< 100 %

2004/42/EC (VOC):

< 100 %

National regulatory information

- --- -

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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):	1 - slightly water contaminating

#### 15.2. Chemical safety assessment

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

#### **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) Highly flammable liquid and vapour. H225 H319 Causes serious eye irritation.

- H336 May cause drowsiness or dizziness.
- EUH066 Repeated exposure may cause skin dryness or cracking.

#### **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.)