



Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

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

1.1. Product identifier

Code: 18/028
Product name: TORAN 3

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

Intended use: Resin in solution.

1.3. Details of the supplier of the safety data sheet

Name: CHEMTEC S.r.l
Full address: Via Alberto da Giussano 36/O
District and Country: 20011 CORBETTA (MI)
ITALY
Tel. +39 02 92867461
Fax +39 02 87366254

e-mail address of the competent person

responsible for the Safety Data Sheet: labo@chemtec.it
Product distribution by: CHEMTEC S.r.l

1.4. Emergency telephone number

For inquiries refer to: +39 02 92867461 during office hour 8.30-12.30 - 13.30-17.30
For urgent inquiries refer to: Local emergency services

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP). However, since the product contains hazardous substances in concentrations such as to be declared in section no. 3, it requires a safety data sheet with appropriate information, compliant to (EU) Regulation 2015/830.
Hazard classification and indication: --

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms: --

Signal words: --

Hazard statements:

EUH210 Safety data sheet available on request.
EUH208 Contains: BIS-[4-(2,3-EPOXI)PHENYL]PROPANE
May produce an allergic reaction.

Precautionary statements: --

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

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SECTION 3. Composition/information on ingredients**3.2. Mixtures**

Contains:

Identification	Conc. %	Classification 1272/2008 (CLP)
1-(2-BUTOXY-1-METHYLETHOXY)PROPAN-2-OL		
CAS 29911-28-2	80,0 ≤ x ≤ 98,0	--
EC 249-951-5		
INDEX -		
Reg. no. 01-2119451543-42		
BIS-[4-(2,3-EPOXI)PHENYL]PROPANE		
CAS 1675-54-3	0,4 ≤ x ≤ 0,8	Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411
EC 216-823-5		
INDEX 603-073-00-2		
Reg. no. 01-2119456619-26		

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures**4.1. Description of first aid measures**

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

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

Specific information on symptoms and effects caused by the product are unknown.

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

Information for the doctor: symptomatically treatment.

SECTION 5. Firefighting measures**5.1. Extinguishing media**

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

Storage class TRGS 510 (Germany):10

7.3. Specific end use(s)

Resin in solution.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

1-(2-BUTOXY-1-METHYLETHOXY)PROPAN-2-OL

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,519	mg/l
Normal value in marine water	0,0519	mg/l
Normal value for fresh water sediment	2,96	mg/kg
Normal value for marine water sediment	0,296	mg/kg
Normal value for water, intermittent release	5,19	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,287	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Effects on consumers

Effects on workers

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	16 mg/kg				
Inhalation			VND	56 mg/m ³			VND	189 mg/m ³
Skin			VND	80 mg/kg			VND	134 mg/kg

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BIS-[4-(2,3-EPOXIPROPOXI)PHENYL]PROPANE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,003	mg/l
Normal value in marine water	0,0003	mg/l
Normal value for fresh water sediment	0,5	mg/kg/d
Normal value for marine water sediment	0,5	mg/kg/d
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l

Health - Derived no-effect level - DNEL / DMEL

Effects on consumers

Effects on workers

Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		0,75 mg/kg bw/d		0,75 mg/kg bw/d				
Inhalation		0,75 mg/m3		0,75 mg/m3		12,3 mg/m3		12,3 mg/m3
Skin		3,6 mg/kg bw/d		3,6 mg/kg bw/d		8,3 mg/kg bw/d		8,3 mg/kg bw/d

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Appearance	Liquid
Colour	Colourless/light yellow
Odour	Characteristic
Odour threshold	Not available
pH	6,5 - 7,5
Melting point / freezing point	Not available
Initial boiling point	230 °C
Boiling range	Not available
Flash point	100 °C

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Evaporation Rate	Not available
Flammability of solids and gases	Not applicable
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not applicable
Upper explosive limit	Not applicable
Vapour pressure	Not available
Vapour density	Not available
Relative density	0,90 -0,92 Kg/l
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	60 – 70 s (C.F. 2)
Explosive properties	Not available
Oxidising properties	Not available
9.2. Other information	
VOC (Directive 2010/75/EC) :	0,38 % - 3,45 g/litre
VOC (volatile carbon) :	0,26 % - 2,34 g/litre

SECTION 10. Stability and reactivity**10.1. Reactivity**

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

1-(2-BUTOXY-1-METHYLETHOXY)PROPAN-2-OL
Avoid exposure to: heat, naked flames, electrostatic discharges.
BIS-[4-(2,3-EPOXI)PROPOXI]PHENYL]PROPANE
May polymerise if exposed to: high temperatures.

10.5. Incompatible materials

1-(2-BUTOXY-1-METHYLETHOXY)PROPAN-2-OL
Incompatible with: strong acids, strong oxidising agents.
BIS-[4-(2,3-EPOXI)PROPOXI]PHENYL]PROPANE
Incompatible with: strong oxidising agents, sodium hydroxide.

10.6. Hazardous decomposition products

Information not available.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effectsMetabolism, toxicokinetics, mechanism of action and other information

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Information not available.

Information on likely routes of exposure

Information not available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available.

Interactive effects

Information not available.

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	Not classified (no significant component)
LD50 (Dermal) of the mixture:	Not classified (no significant component)

1-(2-BUTOXY-1-METHYLETHOXY)PROPAN-2-OL

LD50 (Oral)	3160 mg/kg Rat (OECD - 401)
LD50 (Dermal)	> 2000 mg/kg Rat (OECD - 402)
LC50 (Inhalation)	> 5,4 mg/l/4h Rat (OECD - 403)

BIS-[4-(2,3-EPOXIPROPOXI)PHENYL]PROPANE

LD50 (Oral)	11400 mg/kg Rat
LD50 (Dermal)	2000 mg/kg Rat

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class.

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class.

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains: BIS-[4-(2,3-EPOXIPROPOXI)PHENYL]PROPANE.

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class.

CARCINOGENICITY

Does not meet the classification criteria for this hazard class.

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class.

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class.

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class.

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class.

SECTION 12. Ecological information

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity

1-(2-BUTOXY-1-METHYLETHOXY)PROPAN-2-OL

LC50 - for Fish

841 mg/l/96h Poecilia sp. (OECD - 203)

EC50 - for Crustacea

> 100 mg/l/48h Daphnia magna (OECD - 202)

BIS-[4-(2,3-EPOXI)PHENYL]PROPANE

LC50 - for Fish

1,3 mg/l/96h

EC50 - for Crustacea

2,1 mg/l/48h

EC10 for Algae / Aquatic Plants

> 11 mg/l/72h

Chronic NOEC for Crustacea

0,3 mg/l (21d)

12.2. Persistence and degradability

1-(2-BUTOXY-1-METHYLETHOXY)PROPAN-2-OL

Solubility in water

40000 mg/l (25°C)

Rapidly degradable

BIS-[4-(2,3-EPOXI)PHENYL]PROPANE

NOT rapidly degradable

12.3. Bioaccumulative potential

1-(2-BUTOXY-1-METHYLETHOXY)PROPAN-2-OL

Partition coefficient: n-octanol/water

1,523 (25°C - pH 7)

BCF

< 100

BIS-[4-(2,3-EPOXI)PHENYL]PROPANE

Partition coefficient: n-octanol/water

3

12.4. Mobility in soil

1-(2-BUTOXY-1-METHYLETHOXY)PROPAN-2-OL

Partition coefficient: soil/water

1

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available.

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Not applicable.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Not applicable.

14.6. Special precautions for user

Not applicable.

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

Information not relevant.

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EC: None.

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

None.

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

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None.

Healthcare controls

Information not available.

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)

WGK 1: Low hazard to waters.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
EUH210	Safety data sheet available on request.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament

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2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:

The following sections were modified:

02 / 03 / 04 / 06 / 07 / 08 / 09 / 10 / 11 / 12 / 15 / 16.