



SAFETY DATA SHEET
TYZOR TE
Conforms to UNGHS Rev.4(2011)

SECTION 1: identification of the hazardous chemical and of the supplier**Product identifier**

Product name TYZOR TE

Recommended use of the substance or mixture and restrictions on use

Identified uses Catalysts/Cross-linking agent/Adhesion promoters. Not for consumer application.

Details of the supplier of the safety data sheet

Manufacturer Dorf Ketal Chemicals (I) Pvt. Ltd.
Dorf Ketal Tower-2. Kanchpada,
Ramchandra Lane,
Malad (W).Mumbai 400064.
Ph.: +91-22-28813654 / +91-22-28828374.
Fax: +91-22-28882366.
Email: ehss@dorketal.com.

Emergency telephone number

Emergency telephone For Chemical Emergency ONLY (in the case of fire, leak, spill, exposure or accident) call CHEMTREC at +1(703) 527- 3887 or CHEMTREC India at 000-800-100-7141. For ALL other emergencies call DORF KETAL Emergency Control Room +91/022-27402879 & +91/022-33286102.

SECTION 2: Hazard identification**Classification of the substance or mixture****Classification**

Physical hazards Flam. Liq. 2 - H225
Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H336
Environmental hazards Not Classified

Label elements**Pictogram**

Signal word Danger

Hazard statements H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

TYZOR TE

Precautionary statements

P241 Use explosion-proof electrical equipment.
 P264 Wash contaminated skin thoroughly after handling.
 P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P332+P313 If skin irritation occurs: Get medical advice/ attention.
 P337+P313 If eye irritation persists: Get medical advice/ attention.
 P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.
 P501 Dispose of contents/ container in accordance with national regulations.

Contains

Titanium complex, Propan-2-ol

Supplementary precautionary statements

P210 Keep away from heat/ sparks/ open flames /hot surfaces – No smoking.
 P240 Ground/ bond container and receiving equipment.
 P242 Use only non-sparking tools.
 P243 Take precautionary measures against static discharge.
 P261 Avoid breathing vapour/ spray.
 P271 Use only outdoors or in a wellventilated area.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P302+P352 IF ON SKIN: Wash with plenty of water.
 P303+P361+P353 IF ON SKIN (or hair): Remove/ take off immediately all contaminated clothing. Rinse skin with water/ shower.
 P312 Call a POISON CENTER or doctor/ physician if you feel unwell.
 P321 Specific treatment (see medical advice on this label).
 P362+P364 Take off contaminated clothing and wash before reuse.
 P403+P235 Store in a well-ventilated place. Keep cool.

Other hazards

This product does not contain any substances classified as PBT or vPvB (persistent, bioaccumulative and toxic, or very persistent and very bioaccumulative).

SECTION 3: Composition and information of the ingredients of the hazardous chemical

Mixtures

Titanium complex CAS number: Proprietary	74-86%
Classification Skin Irrit. 2 - H315 Eye Irrit. 2 - H319	
Propan-2-ol CAS number: 67-63-0	16-30%
Classification Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336	

The full text for all hazard statements is displayed in Section 16.

SECTION 4: First-aid measures

TYZOR TE

Description of first aid measures

General information	Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention. Place unconscious person on their side in the recovery position and ensure breathing can take place.
Ingestion	Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Never give anything by mouth to an unconscious person. Place unconscious person on their side in the recovery position and ensure breathing can take place. Keep affected person under observation. Get medical attention if symptoms are severe or persist.
Skin contact	Rinse with water.
Eye contact	Rinse with water. Do not rub eye. Remove any contact lenses and open eyelids wide apart. Get medical attention if any discomfort continues.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.

Most important symptoms and effects, both acute and delayed

Inhalation	May cause drowsiness or dizziness.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.

Indication of any immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.
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SECTION 5: Fire-fighting measures

Extinguishing media

Suitable extinguishing media	The product is flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards	Containers can burst violently or explode when heated, due to excessive pressure build-up. Flammable liquid and vapour. Vapours may be ignited by a spark, a hot surface or an ember. Vapours may form explosive mixtures with air. Fire-water run-off in sewers may create fire or explosion hazard.
Hazardous combustion products	None known.

Advice for fire-fighters

Protective actions during firefighting	Avoid breathing fire gases or vapours. Evacuate area. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. Ventilate closed spaces before entering them. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
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TYZOR TE

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Fire-fighter's clothing will provide a basic level of protection for chemical incidents.

Hazchem code •3YE

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into spilled material. Evacuate area. Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage. Promptly remove any clothing that becomes contaminated. Avoid inhalation of vapours and spray/mists. Use suitable respiratory protection if ventilation is inadequate.

Environmental precautions

Environmental precautions Inform respective authorities in case of seepage into water course or sewage system. Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up

Methods for cleaning up Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Eliminate all ignition sources if safe to do so. No smoking, sparks, flames or other sources of ignition near spillage. Do not allow material to enter confined spaces, due to the risk of explosion. Absorb small quantities with paper towels and evaporate in a safe place. Once evaporation is complete, place paper in a suitable waste disposal container and seal securely. Large Spillages: If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. The contaminated absorbent may pose the same hazard as the spilled material. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13.

Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Usage precautions Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimise spills. Keep container tightly sealed when not in use. Avoid the formation of mists. The product is flammable. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers.

Advice on general occupational hygiene Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

TYZOR TE

Storage precautions	Store away from incompatible materials (see Section 10). Store locked up. Keep away from oxidising materials, heat and flames. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Moisture-sensitive material. Once opened, container should be kept under nitrogen blanketing to prevent decomposition. Shelf life two years from the date of manufacturing.
Storage class	Flammable liquid storage.
Specific end use(s)	
Specific end use(s)	The identified uses for this product are detailed in Section 1.

SECTION 8: Exposure controls and personal protection

Control parameters

Occupational exposure limits

Propan-2-ol

PEL, LTV 980 mg/m³, 400 ppm

Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Ensure the ventilation system is regularly maintained and tested. Good general ventilation should be adequate to control worker exposure to airborne contaminants. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Wear tight-fitting, chemical splash goggles or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Hand protection

No specific hand protection recommended.

Other skin and body protection

Wear appropriate clothing to prevent repeated or prolonged skin contact.

Hygiene measures

Wash after use and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.

Respiratory protection

Ensure all respiratory protective equipment is suitable for its intended use. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges suitable for intended use should be used. Full face mask respirators with replaceable filter cartridges suitable for intended use should be used. Half mask and quarter mask respirators with replaceable filter cartridges suitable for intended use should be used.

Environmental exposure controls

Keep container tightly sealed when not in use.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Pale colour. / Light Yellow
Odour	Alcoholic.
Melting point	-55°C

TYZOR TE

Initial boiling point and range	85°C
Flash point	16°C
Vapour pressure	<2.1 kPa @ 20°C
Relative density	at 25 °C 1,06 g/cm³
Viscosity	60-90 mPa s @ dynamic°C
Explosive under the influence of a flame	Not considered to be explosive.
Other information	No information available.

SECTION 10: Stability and reactivity

Reactivity	See the other subsections of this section for further details.
Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
Possibility of hazardous reactions	The following materials may react strongly with the product: Oxidising agents.
Conditions to avoid	Avoid heat, flames and other sources of ignition. Containers can burst violently or explode when heated, due to excessive pressure build-up. Static electricity and formation of sparks must be prevented.
Materials to avoid	Oxidising materials. Acids - oxidising.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity - oral

Summary	Isopropanol: 67-63-0
Notes (oral LD₅₀)	LD ₅₀ >5000 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀)	LD ₅₀ >5000 mg/kg, , Rabbit
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Acute toxicity - inhalation

Notes (inhalation LC₅₀)	LC50 >20 mg/l, , Rat
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Skin corrosion/irritation

Summary	Not irritating.
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Serious eye damage/irritation

Summary	Causes eye irritation.
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Respiratory sensitization

Respiratory sensitization	No specific test data are available.
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Skin sensitization

Summary	Not sensitizing.
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TYZOR TE

Germ cell mutagenicity

Genotoxicity - in vitro Negative.

Carcinogenicity

Summary No adverse effects known.

Reproductive toxicity

Summary No adverse effects known.

Specific target organ toxicity - single exposure

STOT - single exposure May cause drowsiness or dizziness.

SECTION 12: Ecological Information

Acute aquatic toxicity

Summary Isopropanol: 67-63-0

Acute toxicity - fish LC₅₀, 96 hour: ≥ 10000 mg/l, Fish

Acute toxicity - aquatic invertebrates LC₅₀, 24 hour: >10 000 mg/l, Daphnia magna

Acute toxicity - aquatic plants Toxicity threshold, 7 day: 1800 mg/l, Algae

Persistence and degradability

Persistence and degradability The product is readily biodegradable.

Bioaccumulative potential

Bioaccumulative potential No specific test data are available.

Mobility in soil

Mobility No data available.

Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal information

Waste treatment methods

General information The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Disposal methods Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Incineration or landfill should only be considered when recycling is not feasible.

SECTION 14: Transportation information

UN number

UN No. (Road/Rail) 1993

UN No. (IMDG) 1993

TYZOR TE

UN No. (IATA) 1993

UN proper shipping name

Proper shipping name (Road/Rail) FLAMMABLE LIQUID, N.O.S. (mixture contains, propan-2-ol)

Proper shipping name (IMDG) FLAMMABLE LIQUID, N.O.S. (mixture contains, propan-2-ol)

Proper shipping name (IATA) FLAMMABLE LIQUID, N.O.S. (mixture contains, propan-2-ol)

Transport hazard class(es)

Road/Rail class 3

Road/Rail classification code F1

Road/Rail label 3

IMDG class 3

Transport labels



IATA class/division 3

Packing group

Road/Rail packing group II

IMDG packing group II

IATA packing group II

Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

Special precautions for user

EmS F-E, S-E

Hazard Identification Number (Road/Rail) 33

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the substance or mixture

Chemical safety assessment No chemical safety assessment has been carried out.

SECTION 16: Other information

TYZOR TE

Abbreviations and acronyms used in the safety data sheet

IATA: International air transport association.
ICAO: Technical instructions for the safe transport of dangerous goods by air.
IMDG: International maritime dangerous goods.
CAS: Chemical abstracts service.
ATE: Acute toxicity estimate.
LC₅₀: Lethal concentration to 50 % of a test population.
LD₅₀: Lethal dose to 50% of a test population (median lethal dose).
EC₅₀: 50% of maximal effective concentration.
PBT: Persistent, bioaccumulative and toxic substance.
vPvB: Very persistent and very bioaccumulative.

Classification abbreviations and acronyms

Flam. Liq. = Flammable liquid
Eye Irrit. = Eye irritation
STOT SE = Specific target organ toxicity-single exposure

Training advice

Only trained personnel should use this material.

Revision comments

Storage information updated.

Revision date

24/7/2019

Revision

2

Supersedes date

3/12/2018

SDS number

4550

Hazard statements in full

H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

File Name:

TYZOR TE_300161_SDS_GHS_en_JUL-24-2019

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.