



# SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE PREPARATION AND OF THE COMPANY

Catalogue No. : T 11629  
Product Name : TRIETHANOLAMINE L.R.

Manufacturer/supplier identification  
Company : NICE Chemicals (P) Ltd., Cochin, India  
Tel - 0484 2800212, 2802755

Contact for information : Tel. No.- 0484 2802536 Fax : 0484 2802483  
Emergency Telephone No. : 0484 2801583 Tele fax No. : 0484 2802483

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## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Tris (2-hydroxyethyl)amine: 2.2'.2"-Trihydroxytriethylamine:TEA

CAS-No : 102-71-6 Ec-Index No. :  
Molar Mass : 149.19 EC-No. : 203-049-8  
Molecular formula : C<sub>6</sub>H<sub>15</sub>NO<sub>3</sub>

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## 3. HAZARDS INDEX

According to the evaluative data available, a classification according to categories of danger as specified in Directive 67/548/EEC & laid down in the legislation of the country concerned is not required.

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## 4. FIRST AID MEASURES

After inhalation : Fresh air.  
After skin contact : Wash off with plenty of water. Remove contaminated clothing.  
After eye contact : Rinse out with plenty of water with the eyelid held wide open.  
After swallowing : Make victim drink plenty of water, induce vomiting, summon doctor if feeling unwell.

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## 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Water, CO<sub>2</sub>, foam, powder.  
Special risks : Combustible. Vapours heavier than air. Formation of hazardous combustion gases or vapours possible in event of fire. The following may develop in event of fire: nitrogen oxides.  
Special protective equipment for fire fighting : Do not stay in dangerous zone without suitable chemical protection clothing and self-contaminated breathing apparatus.  
Other information :  
Prevent fire-fighting water from entering surface water or groundwater.

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## 6. ACCIDENTAL RELEASE MEASURES

Person - related precautionary measures : Do not inhale vapours/aerosols.  
Environmental-protection measures : Do not allow to enter sewerage system.  
Procedures for cleaning/absorption: Take up with liquid- absorbent material (e.g. Chemisorb). Forward for disposal. Clean up affected area.



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## 7. HANDLING AND STORAGE

Handling - Solidification point +21° C. The solid product can be remelted by heating on a water bath without reducing the quality.  
Storage - At +15° C to +25° C. Tightly closed. No further requirements.

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## 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Respiratory protection : Required when vapours/aerosols are generated.  
Eye Protection : Required  
Hand Protection : Required

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Industrial hygiene : Change contaminated clothing. Application of skin-protective barrier cream recommended. Wash hands after working with substance.

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<b>9. PHYSICAL AND CHEMICAL PROPERTIES</b>	Form	:	Liquid
	Colour	:	Colourless
	Odour	:	Weak
	pH value at 150g/l H <sub>2</sub> O (20 °C)	:	10 - 13
	Melting temperature	:	21.2 ° C
	Boiling temperature	:	360 ° C
	Ignition temperature	:	360 ° C
	Flash Point	:	179 ° C
	Explosion limit lower	:	Not available
	upper	:	Not available
	Relative vapour density	:	Not available
	Density (20 ° C)	:	1.12 gm/cm <sup>3</sup>
	Solubility in Water (20 ° C)	:	Soluble
	Log P(oct)	:	-1.32

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## 10. STABILITY AND REACTIVITY

Conditions to be avoided : No information available.  
Substances to be avoided : acids, anhydrides, halogenating agents.  
Violent reactions possible with : oxidizing agent.  
Hazardous decomposition products : No information available.

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## 11. TOXICOLOGICAL INFORMATION

Acute toxicity : LD<sub>50</sub> (oral, rat) : >5000 mg/kg  
LD<sub>50</sub> (dermal, rabbit) : > 2000 mg/kg.  
Further toxicological information :  
After inhalation : When vapours/aerosols are generated : coughing



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After skin contact : No skin-irritant effect in animal experiments.  
After eye contact : No eye-irritant effect in animal experiments.

After swallowing : Rapid absorption, pain.  
Systemic effects : After uptake of large quantities : nausea, vomiting, diarrhoea,  
dizziness, tiredness, collapse, unconsciousness.

Other notes : No sensitizing potential.  
After long-term exposure to the chemical : Damage of liver, kidneys. Under given conditions, contact with nitrites or nitric acid can lead to the formation of nitrosamines, which have shown themselves to be carcinogenic in animal experiments.

Further data : Further hazardous properties cannot be excluded. The product should be handled with the care usual when dealing with chemicals.

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**12. ECOLOGICAL INFORMATION** : Ecotoxicity effects : Biological effects : Toxic for aquatic organisms.  
Colpoda EC<sub>10</sub> : 160 mg/l. Sc.quadricauda EC<sub>10</sub> : 100 mg/l., Daphnia magna LC<sub>50</sub> : 1390 mg/l., ThOD : 2.04 g/g, COD<sub>5</sub> : 1.50g/g, BOD : 0.90 g/g

Further ecologic data: Evaluation number (FRG)(bacteria): 3.3; Evaluation number (FRG) (fish) : > 2.5; Evaluation number (FRG) (mammal) : 1.0  
Behavior in environmental compartments : Distribution : log P(oct) : -1.32  
Caustic even in diluted form. Harmful effect due to pH shift. Hazard for drinking water supplies. Do not allow to enter waters, waste water, or soil !

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**13. DISPOSAL METHOD** : There are no uniform EC regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EC member countries through corresponding laws and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste.

Disposal in compliance with official regulations. Handle contaminated packaging in the same way as the substance itself. If not officially specified differently, non-contaminated packaging may be treated like household waste or recycled.

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## 14. TRANSPORT INFORMATION

Not subject to transport regulations.

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**15. REGULATORY INFORMATION** Labeling according to EC Directives

Symbol : ---  
R-phrases : ---  
S-phrases : ---  
Water pollution class : 1 (slightly polluting substance)

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**16. OTHER INFORMATION :**

Reason for alteration

General update.

The information contained herein is based on the present state of our knowledge, It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

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