



TRIETHANOLAMINE 99%

Product Safety Information Sheet

A safety data sheet is not required for this product under Article 31 of REACH. This Product Safety Information Sheet has been created on a voluntary basis

Reference number: TEA 99%

Issue date: 9/3/2010 Revision date: 7/27/2022 Supersedes version of: 10/4/2011 Version: 4.0

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

1.1. Product identifier

Product form	: Substance
Substance name	: TRIETHANOLAMINE 99%
EC-No.	: 203-049-8
CAS-No.	: 102-71-6
REACH registration No	: 01-2119486482-31
Product code	: TEA 99%

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

1.2.1. Relevant identified uses

No additional information available

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of product safety information sheet

INTERCHIMIE
ZAC du Parc 13 rue Louis Blériot
FR- 77290 COMPANS
T T: +33 (0)1 64 77 76 27
qualite@interchimie.fr - www.interchimie.fr

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	: TRIETHANOLAMINE 99%
CAS-No.	: 102-71-6
EC-No.	: 203-049-8

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Name	Product identifier	%
2,2',2''-nitrilotriethanol	CAS-No.: 102-71-6 EC-No.: 203-049-8 REACH-no: 01-2119486482-31	≥ 99
2,2'-iminodiethanol	CAS-No.: 111-42-2 EC-No.: 203-868-0 EC Index-No.: 603-071-00-1 REACH-no: 01-2119488930-28	0.1 – 0.4

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: This product is not considered to be hazardous. If you feel unwell, seek medical advice.
First-aid measures after inhalation	: If you feel unwell, seek medical advice. Allow affected person to breathe fresh air.
First-aid measures after skin contact	: Wash with soapy water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after ingestion	: This product is not considered to be hazardous. Get medical advice/attention if you feel unwell. Rinse mouth out with water. Do not induce vomiting. Drink plenty of water.

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

Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation	: Cough.
Symptoms/effects after skin contact	: Rednesses.
Symptoms/effects after eye contact	: May cause eye irritation. Redness.
Symptoms/effects after ingestion	: Ingestion may cause nausea and vomiting. Diarrhea.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Carbon dioxide. Water spray. Foam. Dry powder. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Toxic fumes may be released. Carbon dioxide. Carbon monoxide.
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5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment.
Other information	: Prevent fire fighting water from entering the environment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Spill area may be slippery. Evacuate area.
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6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of solid materials or residues refer to section 13 : "Disposal considerations".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : This product is not considered to be hazardous. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Hygiene measures : Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed. Keep cool. Protect from sunlight.
Incompatible materials : copper. Bronze. Aluminium.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

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8.2.2.2. Skin protection

Hand protection:

Protective gloves made of rubber

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Respiratory protection			
Device	Filter type	Condition	Standard
	Type A - High-boiling (>65 °C) organic compounds		

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless. Yellow.
Odour	: Ammonia.
Odour threshold	: No data available
pH	: 11 (25%)
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 20.5 °C
Freezing point	: No data available
Boiling point	: 336.1 °C 1013.25 hPa
Flash point	: 179
Auto-ignition temperature	: 324
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: 1.125
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Partition coefficient n-octanol/water (Log Kow)	: -2.3 (Valeur expérimentale ; Équivalent à OCDE 107 ; 25 °C)
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 0.934 Pa·s (20°C)
Explosive properties	: No dangerous reactions known.
Oxidising properties	: No dangerous reactions known.
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is stable at normal handling and storage conditions.

10.2. Chemical stability

Hydroscopic.

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10.3. Possibility of hazardous reactions

Stable under normal conditions of use.

10.4. Conditions to avoid

Heat. Open flame. Avoid ignition sources.

10.5. Incompatible materials

Oxidizing agent. Strong acids. Water. Metals.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. fume. May liberate toxic gases.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

2,2',2''-nitrilotriethanol (102-71-6)

LD50 oral rat	7200 mg/kg
LD50 dermal rat	> 2000 mg/kg

2,2'-iminodiethanol (111-42-2)

LD50 oral rat	1600 mg/kg
LD50 dermal rat	12970 mg/kg
LC50 Inhalation - Rat	0.2 mg/l CL0 (8h)

Skin corrosion/irritation : Not classified
pH: 11 (25%)
Serious eye damage/irritation : Not classified
pH: 11 (25%)
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified

2,2'-iminodiethanol (111-42-2)

NOAEL (dermal, rat/rabbit, 90 days)	32 mg/kg bodyweight/day rat 103 semaines
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute) : Not classified
Hazardous to the aquatic environment, long-term (chronic) : Not classified

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2,2',2''-nitrilotriethanol (102-71-6)

LC50 - Fish [1]	1460 (450 – 7900) mg/l 96h
EC50 - Crustacea [1]	> 2500 mg/l 48h
EC50 72h - Algae [1]	216 mg/l 72h

2,2'-iminodiethanol (111-42-2)

LC50 - Fish [1]	1460 mg/l 96h - pimephales promelas
EC50 - Crustacea [1]	55 mg/l 48h
EC50 72h - Algae [1]	9.5 mg/l Pseudokirchneriella subcapitata
LOEC (acute)	1.56 mg/l 504h - Daphnia magna
NOEC chronic crustacea	0.78 mg/l 504h - Daphnia magna

12.2. Persistence and degradability

TRIETHANOLAMINE 99% (102-71-6)

Persistence and degradability	Biodegradable.
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2,2',2''-nitrilotriethanol (102-71-6)

Biodegradation	97 % 28j
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2,2'-iminodiethanol (111-42-2)

Persistence and degradability	Readily biodegradable.
Chemical oxygen demand (COD)	1.352 g O ₂ /g substance
Biodegradation	93 % 28 j - OECD 301F

12.3. Bioaccumulative potential

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Partition coefficient n-octanol/water (Log Kow)	-2.3 (Valeur expérimentale ; Équivalent à OCDE 107 ; 25 °C)
Bioaccumulative potential	Bioaccumulation unlikely.

2,2',2''-nitrilotriethanol (102-71-6)

BCF - Fish [1]	< 0.4 Cyprinus carpio OECD 305C
Partition coefficient n-octanol/water (Log Pow)	-2.3

2,2'-iminodiethanol (111-42-2)

Partition coefficient n-octanol/water (Log Kow)	-2.18
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12.4. Mobility in soil

TRIETHANOLAMINE 99% (102-71-6)

Mobility in soil	Très mobile dans le sol
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2,2',2''-nitrilotriethanol (102-71-6)

Mobility in soil	soluble in water
Surface tension	48.8 mN/m 25°C

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12.5. Results of PBT and vPvB assessment

TRIETHANOLAMINE 99% (102-71-6)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Component

2,2',2''-nitrilotriethanol (102-71-6)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
2,2'-iminodiethanol (111-42-2)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.
European List of Waste (LoW) code : 07 01 04* - other organic solvents, washing liquids and mother liquors
15 01 10* - packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

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Inland waterway transport

Not regulated

Rail transport

Not regulated

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

TRIETHANOLAMINE 99% is not on the REACH Candidate List

TRIETHANOLAMINE 99% is not on the REACH Annex XIV List

TRIETHANOLAMINE 99% is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

TRIETHANOLAMINE 99% is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

TRIETHANOLAMINE 99% is not subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

15.1.2. National regulations

France	
Occupational diseases	
Code	Description
RG 49	Skin disorders caused by aliphatic, alicyclic amines or ethanolamines
RG 49 BIS	Respiratory disorders caused by aliphatic amines, ethanolamines or isophoronediamine

Germany

Water hazard class (WGK) : WGK 1, Slightly hazardous to water (Classification according to VwVwS, Annex 1 or 2; ID No. 201)

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

SZW-lijst van reprotoxische stoffen – Borstvoeding : The substance is not listed

SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : The substance is not listed

SZW-lijst van reprotoxische stoffen – Ontwikkeling : The substance is not listed

SZW-lijst van reprotoxische stoffen – Ontwikkeling : The substance is not listed

Denmark

Danish National Regulations : Pregnant/breastfeeding women working with the product must not be in direct contact with the product

Switzerland

Storage class (LK) : LK 10/12 - Liquids

15.2. Chemical safety assessment

This substance is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

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SECTION 16: Other information

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Data sources : This MSDS has been established with data of MSDS coming from upstream suppliers.

Safety Data Sheet (SDS), EU