

# Safety Data Sheet

## Trilon® M Liquid T

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Version: 3.0

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(30640650/SDS\_GEN\_US/EN)

### 1. Identification

#### Product identifier used on the label

## Trilon® M Liquid T

#### Recommended use of the chemical and restriction on use

Recommended use\*: Chemical

\* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

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

##### Company:

BASF CORPORATION  
100 Park Avenue  
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

#### Emergency telephone number

CHEMTREC: 1-800-424-9300  
BASF HOTLINE: 1-800-832-HELP (4357)

#### Other means of identification

Chemical family: in water

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### 2. Hazards Identification

#### According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

#### Classification of the product

Met. Corr.

1

Corrosive to metals

#### Label elements

Pictogram:



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Signal Word:  
Warning

Hazard Statement:  
H290 May be corrosive to metals.

Precautionary Statements (Prevention):  
P234 Keep only in original packaging.

Precautionary Statements (Response):  
P390 Absorb spillage to prevent material damage.

Precautionary Statements (Storage):  
P406 Store in a corrosion-resistant/... container with a resistant inner liner.

### Hazards not otherwise classified

No specific dangers known, if the regulations/notes for storage and handling are considered.

## 3. Composition / Information on Ingredients

**According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200**

<u>CAS Number</u>	<u>Weight %</u>	<u>Chemical name</u>
1310-73-2	0.3 - 1.0%	Sodium Hydroxide
2836-32-0	0.0 - 1.0%	Acetic acid, hydroxy-, monosodium salt

The product contains:

<u>CAS Number</u>	<u>Weight %</u>	<u>Chemical name</u>
5064-31-3	>= 0.0 - <= 0.1%	trisodium nitrilotriacetate

## 4. First-Aid Measures

### Description of first aid measures

**General advice:**  
Remove contaminated clothing.

**If inhaled:**  
Keep patient calm, remove to fresh air.

**If on skin:**  
Wash thoroughly with soap and water.

**If in eyes:**  
Wash affected eyes for at least 15 minutes under running water with eyelids held open.

**If swallowed:**  
Rinse mouth and then drink plenty of water.

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

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Symptoms: No significant symptoms are expected due to the non-classification of the product.

### Indication of any immediate medical attention and special treatment needed

#### Note to physician

Treatment: Symptomatic treatment (decontamination, vital functions).

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## 5. Fire-Fighting Measures

### Extinguishing media

Suitable extinguishing media:  
water spray, dry powder, foam

### Special hazards arising from the substance or mixture

Hazards during fire-fighting:  
harmful vapours

Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

### Advice for fire-fighters

Protective equipment for fire-fighting:  
Wear a self-contained breathing apparatus in confined areas or when exposed to combustion products.

### Further information:

Contaminated extinguishing water must be disposed of in accordance with official regulations.

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## 6. Accidental release measures

### Further accidental release measures:

High risk of slipping due to leakage/spillage of product.

### Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Information regarding personal protective measures see, section 8.

### Environmental precautions

Do not discharge into drains/surface waters/groundwater.

### Methods and material for containment and cleaning up

For small amounts: Pick up with absorbent material (e.g. sand, sawdust, general-purpose binder).  
Dispose of absorbed material in accordance with regulations.

For large amounts: Pump off product.

Spills should be contained, solidified, and placed in suitable containers for disposal.

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## 7. Handling and Storage

### Precautions for safe handling

Keep container tightly closed. Protect from the effects of light.

Protection against fire and explosion:

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No special precautions necessary.

### Conditions for safe storage, including any incompatibilities

Suitable materials for containers: Low density polyethylene (LDPE), Stainless steel 1.4301 (V2), glass, High density polyethylene (HDPE)

Further information on storage conditions: Keep in a cool place.  
The packed product is not damaged by low temperatures or by frost.  
Protect from temperatures above: 50 °C

## 8. Exposure Controls/Personal Protection

### Components with occupational exposure limits

Sodium Hydroxide	OSHA PEL	PEL 2 mg/m <sup>3</sup> ; CLV 2 mg/m <sup>3</sup> ;
	ACGIH TLV	CLV 2 mg/m <sup>3</sup> ;

### Advice on system design:

Provide local exhaust ventilation to control vapours/mists.

### Personal protective equipment

#### Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Breathing protection if breathable aerosols/dust are formed.

#### Hand protection:

Chemical resistant protective gloves

#### Eye protection:

Wear face shield or tightly fitting safety goggles (chemical goggles) if splashing hazard exists.

#### Body protection:

Body protection must be chosen based on level of activity and exposure.

### General safety and hygiene measures:

Wear protective clothing as necessary to minimize contact. Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Avoid contact with skin and eyes. Remove contaminated clothing.

## 9. Physical and Chemical Properties

Form:	liquid
Odour:	product specific
Odour threshold:	not determined
Colour:	colourless to yellowish
pH value:	11 ( 10 g/l)
Freezing point:	not determined
Boiling point:	approx. 100 °C ( 1,013 hPa)
Flash point:	A flash point determination is unnecessary due to the high water content.
Flammability:	not self-igniting

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Lower explosion limit:	For liquids not relevant for classification and labelling. The lower explosion point may be 5 - 15 °C below the flash point.	
Upper explosion limit:	For liquids not relevant for classification and labelling.	
Autoignition:	> 200 °C	(DIN 51794)
Vapour pressure:	20 hPa ( 20 °C)	(internal method)
<i>Information on: Water</i>		
Vapour pressure:	23.4 hPa ( 20 °C) Literature data.	
-----		
Density:	1.31 g/cm <sup>3</sup> ( 20 °C)	(ASTM D4052)
Relative density:	1.29 - 1.33 ( 20 °C)	
Vapour density:	not determined	
Partitioning coefficient n-octanol/water (log Pow):	Study does not need to be conducted.	
Self-ignition temperature:	not self-igniting	
Thermal decomposition:	not determined	
Viscosity, dynamic:	approx. 25 mPa.s ( 23 °C)	(DIN 53018)
Particle size:	The substance / product is marketed or used in a non solid or granular form.	
Solubility in water:	( 20 °C) miscible	
Evaporation rate:	Value can be approximated from Henry's Law Constant or vapor pressure.	
Other Information:	If necessary, information on other physical and chemical parameters is indicated in this section.	

## 10. Stability and Reactivity

### Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals:

Corrosive effect on: Aluminium

Oxidizing properties:

not fire-propagating

### Chemical stability

The product is stable if stored and handled as prescribed/indicated.

### Possibility of hazardous reactions

No hazardous reactions when stored and handled according to instructions.

The product is chemically stable.

### Conditions to avoid

No data available.

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### Incompatible materials

oxidizing agents

### Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

not determined

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## 11. Toxicological information

### Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

### Acute Toxicity/Effects

#### Oral

Type of value: LD50

Species: rat

Value: > 2,000 mg/kg (Guideline 92/69/EEC, B.1)

*Information on: Alanine, N,N-bis(carboxymethyl)-, trisodium salt*

*Type of value: LD50*

*Species: rat (male/female)*

*Value: > 2,000 mg/kg (Guideline 92/69/EEC, B.1)*

*Limit concentration test only (LIMIT test). No mortality was observed.*

#### Inhalation

Type of value: LC50

Species: rat

not determined

#### Dermal

Type of value: LD50

Species: rat

Value: 2,000 mg/kg (OECD Guideline 402)

*Information on: Alanine, N,N-bis(carboxymethyl)-, trisodium salt*

*Type of value: LD50*

*Species: rat (male/female)*

*Value: > 2,000 mg/kg (OECD Guideline 402)*

*Limit concentration test only (LIMIT test). No mortality was observed.*

#### Assessment other acute effects

No data available.

#### Irritation / corrosion

Assessment of irritating effects: Not irritating to eyes and skin.

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### Skin

*Information on: Alanine, N,N-bis(carboxymethyl)-, trisodium salt*  
*Species: rabbit*  
*Result: non-irritant*  
*Method: OECD Guideline 404*  
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### Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

*Information on: Alanine, N,N-bis(carboxymethyl)-, trisodium salt*  
*Guinea pig maximization test*  
*Species: guinea pig*  
*Result: Non-sensitizing.*  
*Method: OECD Guideline 406*  
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### Aspiration Hazard

No aspiration hazard expected.

## **Chronic Toxicity/Effects**

### Repeated dose toxicity

Assessment of repeated dose toxicity: The substance may cause damage to the kidney after repeated ingestion of high doses, as shown in animal studies. The data on toxicology refer to the active ingredient.

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

### Genetic toxicity

Assessment of mutagenicity: Based on available Data, the classification criteria are not met.

*Information on: Alanine, N,N-bis(carboxymethyl)-, trisodium salt*  
*Assessment of mutagenicity: The substance was not mutagenic in bacteria. The substance induced chromosomal aberrations in a mammalian cell culture test. The substance was not mutagenic in a test with mammals.*  
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Genetic toxicity in vitro: OECD Guideline 471 Ames-test negative

OECD Guideline 472 Ames-test negative

OECD Guideline 473 Cytogenetic assay The genotoxic effect shown in vitro was not confirmed in vivo.

OECD Guideline 476 HGPRT assay with and without metabolic activation negative

Genetic toxicity in vivo: OECD Guideline 474 Micronucleus assay negative

### Carcinogenicity

Assessment of carcinogenicity: In long-term studies in rats in which the substance was given by feed, a carcinogenic effect was not observed. The data on toxicology refer to the active ingredient. Based on available Data, the classification criteria are not met.

Experimental/calculated data: OECD Guideline 453 rat oral feed

Result: negative

### Reproductive toxicity

Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect. The results were determined in a Screening test (OECD 421/422).

*Information on: Alanine, N,N-bis(carboxymethyl)-, trisodium salt*

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*Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect. The results were determined in a Screening test (OECD 421/422).*

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### Teratogenicity

Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies.

*Information on: Alanine, N,N-bis(carboxymethyl)-, trisodium salt*

*Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies.*

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### **Symptoms of Exposure**

No significant symptoms are expected due to the non-classification of the product.

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## 12. Ecological Information

### **Toxicity**

#### Aquatic toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

#### Toxicity to fish

LC50 (96 h) > 200 mg/l, Brachydanio rerio (OECD 203; ISO 7346; 92/69/EEC, C.1)

#### Aquatic invertebrates

EC50 (48 h) > 200 mg/l, Daphnia magna (OECD Guideline 202, part 1)

#### Aquatic plants

EC50 (72 h) > 200 mg/l (biomass), Scenedesmus subspicatus (Guideline 92/69/EEC, C.3, static)  
Limited influence on algae growth due to chelate formation.

#### Chronic toxicity to fish

No observed effect concentration (28 d) > = 200 mg/l, Oncorhynchus mykiss

#### Chronic toxicity to aquatic invertebrates

No observed effect concentration (21 d) > 200 mg/l, Daphnia magna (OECD Guideline 202, part 2, semistatic)

#### Soil living organisms

Toxicity to soil dwelling organisms:

LC50 (14 d) > 300 mg/kg, Eisenia foetida (OECD Guideline 207, artificial soil)

#### Toxicity to terrestrial plants

EC50 (19 d) 1.500 mg/kg, Avena sativa (OECD Guideline 208)

### **Microorganisms/Effect on activated sludge**

#### Toxicity to microorganisms



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OECD Guideline 209 aerobic  
activated sludge, domestic/EC20 (0.5 h): > 2,000 mg/l

### Persistence and degradability

Assessment biodegradation and elimination (H<sub>2</sub>O)  
Readily biodegradable (according to OECD criteria).

#### Elimination information

80 - 90 % BOD of the ThOD (28 d) (OECD Guideline 301 F) (aerobic)

Based on OECD criteria the product is readily biodegradable.

80 - 90 % TIC of the ThIC (60 d) (OECD guideline 311) (anaerobic)

### Bioaccumulative potential

Assessment bioaccumulation potential  
The product has not been tested.

#### Bioaccumulation potential

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

### Mobility in soil

Assessment transport between environmental compartments  
The substance will not evaporate into the atmosphere from the water surface.  
Adsorption to solid soil phase is not expected.

### Additional information

Add. remarks environm. fate & pathway:  
Treatment in biological waste water treatment plants has to be performed according to local and administrative regulations.

Other ecotoxicological advice:  
Do not release untreated into natural waters.

The product has not been tested. The statement has been derived from the properties of the individual components.

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## 13. Disposal considerations

### **Waste disposal of substance:**

Dispose of in accordance with national, state and local regulations. It is the waste generator's responsibility to determine if a particular waste is hazardous under RCRA.

### **Container disposal:**

Dispose of in accordance with national, state and local regulations.

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## 14. Transport Information

**Land transport**  
USDOT

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May be transported as non hazardous under USDOT in approved packaging.

### Sea transport

IMDG

Hazard class: 8  
Packing group: III  
ID number: UN 3267  
Hazard label: 8  
Marine pollutant: NO  
Proper shipping name: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (contains N,N-BIS(CARBOXYMETHYL)-ALANIN, TRISODIUM SALT)  
CORROSIVE ON ALUMINIUM

### Air transport

IATA/ICAO

Hazard class: 8  
Packing group: III  
ID number: UN 3267  
Hazard label: 8  
Proper shipping name: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (contains N,N-BIS(CARBOXYMETHYL)-ALANIN, TRISODIUM SALT)  
CORROSIVE ON ALUMINIUM

### Further information

Not Class 8 for USDOT as per 49 CFR 173.154 ( d ).

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## 15. Regulatory Information

### Federal Regulations

#### Registration status:

Chemical TSCA, US released / listed

**EPCRA 311/312 (Hazard categories):** Refer to SDS section 2 for GHS hazard classes applicable for this product.

<u>CERCLA RQ</u>	<u>CAS Number</u>	<u>Chemical name</u>
5000 LBS	67-56-1	Methanol
1000 LBS	75-07-0; 1310-73-2	acetaldehyde; Sodium Hydroxide
100 LBS	7664-41-7; 50-00-0	ammonia; Formaldehyde
10 LBS	143-33-9	Sodium Cyanide

#### **Safe Drinking Water & Toxic Enforcement Act, CA Prop. 65:**

#### **BASF Risk Assessment, CA Prop. 65:**

Based on an evaluation of the product's composition and the use(s), this product does not require a California Proposition 65 Warning.

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**NFPA Hazard codes:**

Health: 1      Fire: 1      Reactivity: 0      Special:

**HMIS III rating**

Health: 1      Flammability: 1      Physical hazard: 0

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### 16. Other Information

**SDS Prepared by:**

BASF NA Product Regulations

SDS Prepared on: 2018/08/13

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