

Safety Data Sheet

Trilon® C Liquid

Revision date : 2019/08/05

Version: 5.0

Page: 1/11

(30235585/SDS_GEN_US/EN)

1. Identification

Product identifier used on the label

Trilon® C Liquid

Recommended use of the chemical and restriction on use

Recommended use*: complexing agents for the chemical industry

Recommended use*: Chelate

Suitable for use in industrial sector: chemical industry

* 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

Molecular formula:

Na₅DTPA

Chemical family:

unspecified

Synonyms:

DTPA PENTASODIUM

PENTASODIUM DTPA

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

Acute Tox.

4 (Inhalation - mist)

Acute toxicity

Skin Corr./Irrit.

2

Skin corrosion/irritation

Safety Data Sheet

Trilon® C Liquid

Revision date : 2019/08/05
Version: 5.0

Page: 2/11
(30235585/SDS_GEN_US/EN)

Eye Dam./Irrit.	2A	Serious eye damage/eye irritation
Repr.	2 (unborn child)	Reproductive toxicity
STOT RE	2 (by inhalation)	Specific target organ toxicity — repeated exposure

Label elements

Pictogram:



Signal Word:
Warning

Hazard Statement:

H290	May be corrosive to metals.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H332	Harmful if inhaled.
H361	Suspected of damaging the unborn child.
H373	May cause damage to organs (Respiratory system) through prolonged or repeated exposure (inhalation).

Precautionary Statements (Prevention):

P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P260	Do not breathe dust/gas/mist/vapours.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P264	Wash with plenty of water and soap thoroughly after handling.
P234	Keep only in original packaging.

Precautionary Statements (Response):

P308 + P311	IF exposed or concerned: Call a POISON CENTER or doctor/physician.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P314	Get medical advice/attention if you feel unwell.
P303 + P362	IF ON SKIN (or hair): Wash with plenty of soap and water.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P337 + P311	If eye irritation persists: Call a POISON CENTER or doctor/physician.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P390	Absorb spillage to prevent material damage.

Precautionary Statements (Storage):

P406	Store in a corrosion-resistant/... container with a resistant inner liner.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents/container to hazardous or special waste collection point.
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Hazards not otherwise classified

Safety Data Sheet

Trilon® C Liquid

Revision date : 2019/08/05
Version: 5.0

Page: 3/11
(30235585/SDS_GEN_US/EN)

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

Labeling of special preparations (GHS):

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 2 - 45 %

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>
140-01-2	>= 25.0 - < 50.0%	diethylentriaminepentaacetic acid, pentasodium salt
1310-73-2	>= 1.0 - < 2.0%	Sodium Hydroxide

The product contains:

<u>CAS Number</u>	<u>Weight %</u>	<u>Chemical name</u>
5064-31-3	>= 1.0 - < 3.0%	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, seek medical attention.

If on skin:

Wash thoroughly with soap and water. If irritation develops, seek medical attention.

If in eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

If swallowed:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: Eye irritation, respiratory disorders, gastrointestinal complaints, irritation of the mucous membranes

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

Safety Data Sheet

Trilon® C Liquid

Revision date : 2019/08/05

Version: 5.0

Page: 4/11

(30235585/SDS_GEN_US/EN)

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, carbon oxides, nitrogen oxides

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:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

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

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.

7. Handling and Storage

Precautions for safe handling

No special measures necessary provided product is used correctly.

Protection against fire and explosion:

No special precautions necessary.

Conditions for safe storage, including any incompatibilities

Suitable materials for containers: High density polyethylene (HDPE), Low density polyethylene (LDPE), glass

Further information on storage conditions: Keep container tightly closed and in a cool place.

Storage stability:

Safety Data Sheet

Trilon® C Liquid

Revision date : 2019/08/05
Version: 5.0

Page: 5/11
(30235585/SDS_GEN_US/EN)

Avoid prolonged storage at high temperatures.

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

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

Advice on system design:

Provide local exhaust ventilation to control vapours/mists.

Personal protective equipment

Respiratory protection:

Respiratory protection in case of vapour/aerosol release. Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2)

Hand protection:

Chemical resistant protective gloves

Eye protection:

Tightly fitting safety goggles (chemical goggles) and face shield.

Body protection:

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

General safety and hygiene measures:

Wearing of closed work clothing is required additionally to the stated personal protection equipment. No eating, drinking, smoking or tobacco use at the place of work. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Form:	liquid	
Odour:	faint odour, ammonia-like	
Odour threshold:	not determined	
Colour:	light yellow	
pH value:	11 - 11.8	
solidification temperature:	not determined	
onset of boiling:	approx. 100 °C	
	contains water	
Flash point:	> 100 °C	(DIN ISO 2592)
Flammability:	not flammable	
Lower explosion limit:	For liquids not relevant for classification and labelling.	
Upper explosion limit:	For liquids not relevant for classification and labelling.	
Autoignition:	> 200 °C	(DIN 51794)
Vapour pressure:	approx. 23.4 hPa (20 °C)	
	contains water	
Density:	1.3 - 1.32 g/cm ³ (20 - 25 °C)	
Relative density:	1.3 - 1.32	

Safety Data Sheet

Trilon® C Liquid

Revision date : 2019/08/05

Version: 5.0

Page: 6/11

(30235585/SDS_GEN_US/EN)

Partitioning coefficient n-octanol/water (log Pow):	< -2
Self-ignition temperature:	not self-igniting
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.
Viscosity, dynamic:	not determined
Particle size:	The substance / product is marketed or used in a non solid or granular form.
Solubility in water:	soluble
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: brass zinc 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

See MSDS section 7 - Handling and storage.

Incompatible materials

oxidizing agents, amphoteric metals, light metals, strong reducing agents, water reactive substances

Hazardous decomposition products

Decomposition products:

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

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

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

Safety Data Sheet

Trilon® C Liquid

Revision date : 2019/08/05

Version: 5.0

Page: 7/11

(30235585/SDS_GEN_US/EN)

Acute toxicity

Assessment of acute toxicity: Overexposure via ingestion may cause diarrhea and weakness.

Inhalation of vapours or aerosols may cause respiratory tract irritation.

Of moderate toxicity after short-term inhalation. Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact.

Oral

Type of value: LD50

Species: rat

Value: > 5,000 mg/kg

Inhalation

Type of value: LC50

Species: rat

Value: > 1 - < 5 mg/l

Determined for mist

Dermal

Type of value: LD50

Species: rat

Value: > 5,000 mg/kg

Assessment other acute effects

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Irritation / corrosion

Assessment of irritating effects: Eye contact causes irritation. May cause skin irritation.

Information on: Sodium Hydroxide

Assessment of irritating effects: Highly corrosive! Damages skin and eyes.

Eye

Species: rabbit

Result: Irritant.

Sensitization

Assessment of sensitization: No sensitizing effect.

Aspiration Hazard

No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: The substance may cause damage to the lung after repeated inhalation.

Genetic toxicity

Assessment of mutagenicity: Based on the ingredients, there is no suspicion of a mutagenic effect.

Carcinogenicity

Assessment of carcinogenicity: Based on the ingredients there is a suspicion of a carcinogenic effect in humans.

Safety Data Sheet

Trilon® C Liquid

Revision date : 2019/08/05
Version: 5.0

Page: 8/11
(30235585/SDS_GEN_US/EN)

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

Information on: trisodium nitrilotriacetate

Assessment of carcinogenicity: Indication of possible carcinogenic effect in animal tests.

IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans).

Reproductive toxicity

Assessment of reproduction toxicity: Based on the ingredients, there is no suspicion of a toxic effect on reproduction.

Teratogenicity

Assessment of teratogenicity: Based on the ingredients, there is a suspicion of a teratogenic effect.

Information on: diethylenetriaminepentaacetic acid, pentasodium salt

Assessment of teratogenicity: The results of animal studies gave indication of a developmental toxic/teratogenic effects with high doses.

Other Information

The product has not been tested. The statements on toxicology have been derived from the properties of the individual components.

Symptoms of Exposure

Eye irritation, respiratory disorders, gastrointestinal complaints, irritation of the mucous membranes

12. Ecological Information

Toxicity

Toxicity to fish

LC50 (96 h) > 100 mg/l, *Lepomis macrochirus*

Aquatic invertebrates

EC50 (48 h) > 100 mg/l, *Daphnia magna*

Aquatic plants

No observed effect concentration > 100 mg/l, *Scenedesmus quadricauda*

Chronic toxicity to fish

No data available.

Chronic toxicity to aquatic invertebrates

No data available.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

DIN EN ISO 10712 activated sludge: 200 mg/l

bacterium/EC10 (17 h): 0.49 mg/l

Safety Data Sheet

Trilon® C Liquid

Revision date : 2019/08/05
Version: 5.0

Page: 9/11
(30235585/SDS_GEN_US/EN)

Depending on local conditions and existing concentrations, disturbances in the biodegradation process of activated sludge are possible.

Persistence and degradability

Assessment biodegradation and elimination (H2O)

Not readily biodegradable (by OECD criteria).

Elimination information

< 5 % DOC reduction (28 d) (OECD 302B; ISO 9888; 88/302/EEC, part C) Poorly eliminated from water.

Bioaccumulative potential

Assessment 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

Sum parameter

Chemical oxygen demand (COD): 285 mg/g

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 statements on ecotoxicology have been derived from the properties of the individual components.

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.

14. Transport Information

Land transport

USDOT

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

Safety Data Sheet

Trilon® C Liquid

Revision date : 2019/08/05

Version: 5.0

Page: 10/11

(30235585/SDS_GEN_US/EN)

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 DIETHYLENETRIAMINE PENTAACETIC ACID NA5-SALT) SOLUTION 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 DIETHYLENETRIAMINE PENTAACETIC ACID NA5-SALT) SOLUTION CORROSIVE ON ALUMINIUM

Further information

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

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.

CERCLA RQ

1000 LBS

CAS Number

1310-73-2

Chemical name

Sodium Hydroxide

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

WARNING: This product can expose you to chemicals including NITRILOTRIACETIC ACID AND ITS SALTS, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.

NFPA Hazard codes:

Health: 3 Fire: 1 Reactivity: 0 Special:

HMIS III rating

Health: 3 Flammability: 1 Physical hazard: (Essentially no hazard)

Safety Data Sheet

Trilon® C Liquid

Revision date : 2019/08/05

Version: 5.0

Page: 11/11

(30235585/SDS_GEN_US/EN)

16. Other Information

SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2019/08/05

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