TRIETHANOLAMINE PURE 15% H2O

Version: 7.00 **Date of first issue: 2001/06/28**

Revision Date: 2023/03/14 **Date of last issue: 2020/07/06**

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name **TRIETHANOLAMINE PURE 15% H2O**

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

Use of the Substance/Mixture Industrial use, raw material for synthesis processes in the chemical industry, anti-corrosion agent

Uses advised against

1.3 Details of the supplier of the safety data sheet

Company

SASOL Germany GmbH
Anckelmannsplatz 1
20537 Hamburg
Germany

Telephone: +49 40 63684-1000
Telefax: +49 40 63684-3700

Information (Product safety) E-mail: msds-info.germany@de.sasol.com

1.4 Emergency telephone number

Emergency telephone number

+44 1235 239670	Europe
+44 1235 239671	Middle East, Africa
+1 215 207 0061	North America, South America
+65 3158 1074	Asia Pacific Region
+44 1865 407333	Global (english)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

2.2 Label elements

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

This product is a mixture in the meaning of regulation (EC) 1907/2006.

CHEMICAL CHARACTERIZATION

Preparation on the base:

2,2',2''-nitrilotriethanol

component type: Active ingredient

EC-No.: 203-049-8 **Index-No.:** **CAS-No.:** 102-71-6
REACH No.: 01-2119486482-31-0002
Substance name (REACH / CLP): 2,2',2''-nitrilotriethanol

COMPONENTS TO BE NAMED IN ACCORDANCE WITH REGULATION (EC) 1907/2006 AS WELL AS OTHER HAZARDOUS INGREDIENTS AND CONTAINED SUBSTANCES WITH WORK PLACE LIMIT VALUES

No hazardous ingredients

For information on ingredients listed on the candidate list (Candidate List of Substances of Very High Concern for Authorisation) or in the list of substances subject to authorization (Annex XIV of Regulation (EC) No 1907/2006), see section 15.1. of this data sheet.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice	No hazards which require special first aid measures.
If inhaled	Remove from exposure, lie down. If breathing is irregular or stopped, administer artificial respiration. Monitor breathing, give oxygen if necessary. Consult a physician.
In case of skin contact	Wash off with soap and water.
In case of eye contact	Rinse with plenty of water.
If swallowed	Consult a physician if necessary. Rinse mouth.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	No information available.

Risks	No information available.

4.3 Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media	Water, Foam, Dry powder, Carbon dioxide (CO2)

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting	Dangerous gases or fumes may occur in case of fire.
	In case of fire hazardous decomposition products may be produced such as: Nitrogen oxides (NOx)

5.3 Advice for firefighters

Special protective equipment for firefighters	Wear self-contained breathing apparatus for firefighting if necessary.
	In the event of fire, wear self-contained breathing apparatus.
Further information	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	Handle in accordance with good industrial hygiene and safety practice.
Special precautions	Forms slippery/greasy layers with water.

6.2 Environmental precautions

Environmental precautions	Avoid subsoil penetration. Do not flush into surface water or sanitary sewer system.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling	No special technical protective measures required.
Advice on protection against fire and explosion	Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	Keep container tightly closed.
Requirements for storage areas and containers	No special storage conditions required.
Other data	Protect from frost, heat and sunlight.
container material	unsuitable materials: Light metals/light metal alloys, copper/copper alloys

7.3 Specific end use(s)

Specific use(s)	This information is not available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

COMPONENTS WITH WORKPLACE CONTROL PARAMETERS

National occupational exposure limits

Control parameters / Substance name	Typ	Control parameters	Update	Basis
Triethanolamine 2,2',2''-nitrilotriethanol	TWA	5 mg/m3	2013-03-01	US. Threshold Limit Values (TLV) for Chemical Substances in the Work Environment
	eye irr: Eye irritationSkin irritation			
Triethanolamine 2,2',2''-nitrilotriethanol	PEL	5 mg/m3	2014-11-26	US. California permissible exposure limits for chemical contaminants
2,2',2''-nitrilotriethanol	AGW	1 mg/m3	2018-06-07	Germany. Occupational Exposure Limit Values - TRGS 900 (AGW)
	DFG: Senate Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (MAK Commission)When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			

EUROPEAN OCCUPATIONAL EXPOSURE LIMITS

No data available

DERIVED NO EFFECT LEVEL (DNEL)

Substance name: 2,2',2''-nitrilotriethanol			
End Use	**Exposure routes**	**Value**	**Note**
Workers	dermal, Acute/short-term exposure - systemic effects		Not relevant / Not applicable
	Inhalation, Acute/short-term exposure - systemic effects		Not relevant / Not applicable
	dermal, Acute/short-term exposure - local effects		Not relevant / Not applicable
	Inhalation, Acute/short-term exposure - local effects		Not relevant / Not applicable
	dermal, long-term exposure - systemic effects	7.5 mg/kg	based on body weight and day
	Inhalation, long-term exposure - systemic effects		Not relevant / Not applicable
	dermal, long-term exposure - local effects	0.14 mg/cm2	based on body weight and day
	Inhalation, long-term exposure - local effects	1 mg/m3	
Consumers	dermal, Acute/short-term exposure - systemic effects		Not relevant / Not applicable
	Inhalation, Acute/short-term exposure - systemic effects		Not relevant / Not applicable
	Oral, Acute/short-term exposure - systemic effects		Not relevant / Not applicable
	dermal, Acute/short-term exposure - local effects		Not relevant / Not applicable
	Inhalation, Acute/short-term exposure - local effects		Not relevant / Not applicable
	dermal, long-term exposure - systemic effects	2.66 mg/kg	based on body weight and day
	Inhalation, long-term exposure - systemic effects		Not relevant / Not applicable
	Oral, long-term exposure - systemic effects	3.3 mg/kg	based on body weight and day
	dermal, long-term exposure - local effects	0.07 mg/cm2	based on body weight and day
	Inhalation, long-term exposure - local effects	0.4 mg/m3	

PREDICTED NO EFFECT CONCENTRATION (PNEC)

Substance name: 2,2',2''-nitrilotriethanol		
Environmental Compartment	**Value**	**Note**
Fresh water	0.32 mg/l	
Marine water	0.032 mg/l	
intermittent release	5.12 mg/l	
Sewage treatment plant	10 mg/l	
Fresh water sediment	1.7 mg/kg	based on dry weight
Marine sediment	0.17 mg/kg	based on dry weight
Soil	0.151 mg/kg	based on dry weight
food		Not relevant / Not applicable

8.2 Exposure controls

PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection

No personal respiratory protective equipment normally required. In inadequately ventilated areas, where workplace limits are exceeded, where unpleasant odours exist or where aerosols are in use, or smoke and mist occur, use self-contained breathing apparatus or breathing apparatus with a type A filter or appropriate combined filter (e.g. where aerosols are in use, or smoke and mist occur, A-P2 or ABEK-P2), in compliance with EN 141.

Hand protection

Material: Nitrile rubber/nitrile latex
Break through time: >= 480 min
Glove thickness: 0.35 mm

Material: butyl-rubber
Break through time: >= 480 min
Glove thickness: 0.5 mm

The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other.
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature).

Eye protection

Safety glasses

Skin and body protection

Wear suitable protective equipment.

Hygiene measures

General industrial hygiene practice.

Protective measures

No special protective equipment required.

ENVIRONMENTAL EXPOSURE CONTROLS

General advice

Avoid subsoil penetration.
Do not flush into surface water or sanitary sewer system.

TRIETHANOLAMINE PURE 15% H2O

Version: 7.00 **Date of first issue: 2001/06/28**

Revision Date: 2023/03/14 **Date of last issue: 2020/07/06**

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Physical state: liquid; 20 °C; 1,013 hPa
	Shape: liquid
Colour	clear
Odour	ammoniacal
Odour Threshold	No data available
Melting point/range	< 0 °C
Boiling point/boiling range	110 - 130 °C; 1,013 hPa
Flammability	not applicable (liquid)
Upper explosion limit	No data available
Lower explosion limit	No data available
Flash point	> 100 °C
Auto-ignition temperature	> 300 °C; DIN 51794
Decomposition temperature	No decomposition if used as directed.
pH	ca. 11; 20 °C
Viscosity	
Viscosity, dynamic	No data available
Solubility(ies)	
Water solubility	completely miscible
Partition coefficient: n-octanol/water	log Pow: -1.75; (calculated)
Vapour pressure	< 0.1 hPa; 20 °C
Relative density	No data available
Density	ca.1.1 g/cm3; 20 °C
Relative vapour density	No data available

9.2 Other information

Explosives	not expected based on structure and functional groups
Oxidizing properties	not expected based on structure and functional groups
Self-ignition	not auto-flammable
Evaporation rate	No data available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Note	Stable at normal ambient temperature and pressure. No decomposition if stored and applied as directed.

10.2 Chemical stability

Note	No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions	Incompatible with strong acids and oxidizing agents. None known.

10.4 Conditions to avoid

Conditions to avoid	Direct heating, dirt, chemical contamination, sunlight, UV or ionising radiation.

10.5 Incompatible materials to avoid

Materials to avoid	None known.;

10.6 Hazardous decomposition products

Hazardous decomposition products	No decomposition if stored normally.
Thermal decomposition	No decomposition if used as directed.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Not classified based on available information.

Acute oral toxicity	*2,2',2''-nitrilotriethanol:* LD50 Rat: > 5,000 mg/kg; OECD Test Guideline 401 (literature value) Based on available data, the classification criteria are not met.
Acute inhalation toxicity	*2,2',2''-nitrilotriethanol:* Study/Test not required Justification: Data are available from alternate exposure routes. The value is higher than maximum vapor concentrations obtainable under study conditions
Acute dermal toxicity	*2,2',2''-nitrilotriethanol:* LD50 Rabbit: > 5,000 mg/kg; OECD Test Guideline 402 Symptoms: Erythema (literature value) Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Not classified based on available information.

Skin irritation

2,2',2''-nitrilotriethanol:
Rabbit: No skin irritation; OECD Test Guideline 404
(literature value)
Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Not classified based on available information.

Eye irritation

2,2',2''-nitrilotriethanol:
Rabbit: No eye irritation; OECD Test Guideline 405
(literature value)
Based on available data, the classification criteria are not met.

Skin sensitisation / **Respiratory sensitisation**

Skin contact: Not classified based on available information.

Inhalation: Not classified based on available information.

Sensitisation

2,2',2''-nitrilotriethanol:
Maximisation Test Guinea pig: Not a skin sensitizer.; OECD Test Guideline 406
(literature value)
Based on available data, the classification criteria are not met.

2,2',2''-nitrilotriethanol:
Respiratory sensitisation :
No data available

Germ cell mutagenicity

Not classified based on available information.

Genotoxicity in vitro

2,2',2''-nitrilotriethanol:
In vitro tests did not show mutagenic effects
(literature value)

Genotoxicity in vivo

2,2',2''-nitrilotriethanol:
The study is not necessary.
Justification:
In vitro tests did not show mutagenic effects

Carcinogenicity

Not classified based on available information.

Carcinogenicity

2,2',2''-nitrilotriethanol:
Rat; dermal; 2 years; 5 days/week; OECD Test Guideline 451
In this study no cancerogenic effects were observed.
(literature value)

Reproductive toxicity

Not classified based on available information.

Effects on fertility

2,2',2''-nitrilotriethanol:

Animal testing did not show any effects on fertility.

(literature value)
The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).

Effects on foetal development

2,2',2''-nitrilotriethanol:

Animal testing did not show any effects on foetal development.

The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).

(literature value)

STOT - single exposure

Not classified based on available information.

Assessment *2,2',2''-nitrilotriethanol:*
The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

Not classified based on available information.

Assessment *2,2',2''-nitrilotriethanol:*
The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity *2,2',2''-nitrilotriethanol:*
Rat; oral feed; Subchronic toxicity
NOAEL: 1,000 mg/kg (based on body weight and day); OECD Test Guideline 408
(literature value)

2,2',2''-nitrilotriethanol:
Rat; Inhalation; Subacute toxicity; NOAEC: 0.5 mg/l
Test atmosphere: dust/mist; OECD Test Guideline 412
(literature value)

2,2',2''-nitrilotriethanol:
Rat; Dermal; Subchronic toxicity
NOAEL: 250 mg/kg (based on body weight and day); OECD Test Guideline 411
Target Organs: Kidney
(literature value)

Aspiration hazard

Not classified based on available information.

Aspiration toxicity *2,2',2''-nitrilotriethanol:*
Not applicable

11.2 Information on other hazards

Endocrine disrupting properties The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish *2,2',2''-nitrilotriethanol:*
LC50 (96 h) Pimephales promelas (fathead minnow): > 100 mg/l ; flow-through test
(literature value)

Toxicity to fish - Chronic toxicity *2,2',2''-nitrilotriethanol:*
study scientifically unjustified

Toxicity to daphnia and other *2,2',2''-nitrilotriethanol:*
EC50 (48 h) Ceriodaphnia sp.: > 100 mg/l ; static test

aquatic invertebrates	(literature value)
Toxicity to daphnia and other aquatic invertebrates - Chronic toxicity	*2,2',2''-nitrilotriethanol:* NOEC (21 d) Daphnia magna (Water flea): 16 mg/l; mortality; semi-static test (literature value)
Toxicity to aquatic plants	*2,2',2''-nitrilotriethanol:* EC50 (72 h) Desmodesmus subspicatus (green algae): > 100 mg/l ; static test; (literature value)
Toxicity to bacteria	*2,2',2''-nitrilotriethanol:* EC50 (180 min) activated sludge of a predominantly domestic sewage: > 1,000 mg/l; Respiration inhibition; OECD Test Guideline 209 (literature value)
Toxicity to soil dwelling organisms	*2,2',2''-nitrilotriethanol:* The study is not necessary. Justification: Readily biodegradable. Direct exposure to soil is unlikely.
Plant toxicity	*2,2',2''-nitrilotriethanol:* The study is not necessary. Justification: Readily biodegradable. Direct exposure to soil is unlikely.
Toxicity to terrestrial organisms	*2,2',2''-nitrilotriethanol:* The study is not necessary. Justification: Studies on birds do not need to be conducted due to large mammalian dataset. Direct exposure to soil is unlikely. Readily biodegradable.

12.2 Persistence and degradability

Biodegradability	*2,2',2''-nitrilotriethanol:* Readily biodegradable.; > 60 %; 5 d; aerobic; CO2 Evolution Test (literature value)

12.3 Bioaccumulative potential

Bioaccumulation	*2,2',2''-nitrilotriethanol:* Cyprinus carpio (Carp); 42 d; 0.25 mg/l; Bioconcentration factor (BCF): 3.9; OECD Test Guideline 305C (literature value) Bioaccumulation is unlikely.

12.4 Mobility in soil

Distribution among environmental compartments	*2,2',2''-nitrilotriethanol:* Adsorption/Soil; Medium: Soil; Koc: 10; log Koc: 1; calculated (literature value) Highly mobile in soils

12.5 Results of PBT and vPvB assessment

Results of PBT assessment	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Results of PBT assessment	*2,2',2''-nitrilotriethanol:* This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

12.6 Endocrine disrupting properties

Endocrine disrupting potential	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Additional ecological information	*2,2',2''-nitrilotriethanol:* None known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product	Can be incinerated, when in compliance with local regulations.
Contaminated packaging	Empty remaining contents.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number or ID number

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
ICAO/IATA	Not dangerous goods

14.2 UN proper shipping name

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
ICAO/IATA	Not dangerous goods

14.3 Transport hazard class(es)

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
ICAO/IATA	Not dangerous goods

14.4 Packing group

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
ICAO/IATA	Not dangerous goods

14.5 Environmental hazards

ADR	Environmentally hazardous	no
RID	Environmentally hazardous	no
ADN	Environmentally hazardous	no
IMDG	Marine pollutant	no
ICAO/IATA	Environmentally hazardous	no

14.6 Special precautions for user

Not classified as dangerous in the meaning of transport regulations.

14.7 Maritime transport in bulk according to IMO instruments

Remarks No information available.

SECTION 15: REGULATORY INFORMATION

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

EU PIC: Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals

Not applicable

EU SVHC: REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).

Not applicable

EU. REACH-Annex XIV: REACH - List of substances subject to authorisation (Annex XIV)

Not applicable

EC 1005/2009: Regulation (EC) No 1005/2009 on substances that deplete the ozone layer

Not applicable

EU POP: Regulation (EU) 2019/1021 on persistent organic pollutants (recast)

Not applicable

UK. REACH Annex XIV: UK REACH List of substances subject to authorisation (Annex XIV)

Not applicable

UK SVHC: UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation

Not applicable

GB POPs: The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain)

Not applicable

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)

Not applicable

Legislation on the control of major-accident hazards involving dangerous substances

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

list entry in the directive:: Not applicable

Notification status

Australian Inventory of Industrial Chemicals	ZAU_AIIC	listed (product or constituents are listed)
Canadian Domestic Substances List (DSL)	DSL	listed (product or constituents are listed)
Switzerland. Consolidated Inventory (based on EU-EINECS and EU-NLP)	CH INV	listed (product or constituents are listed)
China. Inventory of Existing Chemical Substances in China (IECSC)	IECSC	listed (product or constituents are listed)
Japan. ENCS - Existing and New Chemical Substances Inventory	ENCS (JP)	listed (product or constituents are listed)
Japan. ISHL - Inventory of Chemical Substances	ISHL (JP)	listed (product or constituents are listed)
Korea. Korean Existing Chemicals Inventory (KECI)	KECI (KR)	listed (product or constituents are listed)
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	PICCS (PH)	listed (product or constituents are listed)
Taiwan Chemical Substance Inventory (TCSI)	ZTW_INV	listed (product or constituents are listed)
United States TSCA Inventory	TSCA	listed (product or constituents are listed)

Please note: the names and CAS numbers which are used for this product in the stated inventories may deviate from the information which is listed in chapter 3.

15.2 Chemical safety assessment

SECTION 16: OTHER INFORMATION

Safety datasheet sections which have been updated:

1. Identification of the substance/mixture and of the company/undertaking

TRIETHANOLAMINE PURE 15% H2O

Version: 7.00 **Date of first issue: 2001/06/28**

Revision Date: 2023/03/14 **Date of last issue: 2020/07/06**

2. Hazards identification
3. Composition/information on ingredients
4. First aid measures
9. Physical and chemical properties
11. Toxicological information
12. Ecological information
15. Regulatory information

Further information: The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.
This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

Key or legend to abbreviations and acronyms used in the safety data sheet

ADN	Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
AICS	Australian Inventory of Chemical Substances
ANSI	American National Standards Institute
ASTM	American Society of Testing and Materials (US)
BCF	Bioconcentration factor
CLP	Regulation on Classification, Labelling and Packaging of Substances and Mixtures
DIN	Deutsches Institut für Normung
DNEL	Derived No-Effect Level
DSL	Domestic Substances List
EC…	Effect concentration ... %
ENCS	Existing Notified Chemical Substances (Japan)
EWC	European Waste Catalogue
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISHL	Industrial Safety and Health Law (Japan)
ISO	International Organization for Standardization
IUAPC	International Union of Pure and Applied Chemistry
KECI	Korea Existing Chemicals Inventory
LC…	Lethal Concentration, ...%
LD…	Lethal Dose, ...%
MARPOL	International Convention for the Prevention of Pollution From Ships
NDSL	Non-Domestic Substances List
NOAEL	no observable adverse effect level
NOEL/NOEC	No Observed-effect level/concentration
NZIoC	New Zealand Inventory of Chemicals
OECD	Organisation for Economic Co-operation and Development
PBT	persistent, bioaccumulative, toxic
PICCS	Philippine Inventory of Chemicals and Chemical Substances
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport international ferroviaire de marchandises dangereuses
TG	Test Guideline
TRGS	Technische Regeln für Gefahrstoffe
TSCA	Toxic Substances Control Act
vPvB	very persistent, very bioaccumulative
WGK	Wassergefährdungsklasse

TRIETHANOLAMINE PURE 15% H2O

Version: 7.00 **Date of first issue: 2001/06/28**

Revision Date: 2023/03/14 **Date of last issue: 2020/07/06**

Annex

Attachments to the safety data sheet and/or lists of the identified uses for the listed substances can be downloaded using the internet links below.

2,2',2''-nitrilotriethanol

http://www.sasolgermany.de/fileadmin/doc/productsafety/Annex/000000000117_EN_01.pdf