SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

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

1.1 Product identifier

Product name:
TEGO® Airex 900

Chemical name:
Organo-modified polysiloxane
This substance/ mixture contains nanoforms

UFI: M6H8-J0N3-300N-76NW

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

Identified uses: Industrial use

Uses advised against: None known.

1.3 Details of the supplier of the safety data sheet

Company Name	:	Evonik Operations GmbH Rellinghauser Str. 1-11 45128 Essen Germany
Telephone	:	+49 201 173 01
Fax	:	+49 201 173 3000
E-mail	:	productsafety-cs@evonik.com

1.4 Emergency telephone number:

24-Hour Health Emergency	:	+49 2365 49 2232 +49 2365 49 4423 (Fax)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product has not been classified as hazardous according to the legislation in force.

Classification according to Regulation (EC) No 1272/2008 as amended.

Not classified

2.2 Label Elements Not applicable

2.3 Other hazards D4/D5/D6 fulfills the screening criteria for PBT and vPvB substances. However, D4/D5/D6 does not behave like known PBT/vPvB substances.

Field trials permit the scientific conclusion that D4/D5/D6 does not accumulate in the aquatic or terrestrial food chain.

Endocrine disrupting properties-Toxicity
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.

Endocrine disrupting properties-Ecotoxicity
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

Chemical name:
Organo-modified polysiloxane

3.2 Mixtures

Chemical name	Concentration	CAS-No.	EC No.	REACH Registration No.	M-Factor:	Notes
octamethylcyclotetrasiloxane	0,01 - <0,1%	556-67-2	209-136-7	01-2119529238-36	Aquatic Toxicity (Acute): 10; Aquatic Toxicity (Chronic): 10	##

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
# This substance has workplace exposure limit(s).
This substance is listed as SVHC.

Classification

Chemical name	Classification	Notes
octamethylcyclotetrasiloxane	Classification**:** Flam. Liq.**:** 3**:** H226**;** Repr.**:** 2**:** H361f**;** Aquatic Chronic**:** 1**:** H410**;** Supplemental label information**:** None known. Specific concentration limit: None known. Acute toxicity, oral**:** LD 50**:** > 5.000 mg/kg Acute toxicity, inhalation**:** LC 50**:** 36 mg/l Acute toxicity, dermal**:** LD 50**:** > 5.000 mg/kg	No data available.

CLP: Regulation No. 1272/2008.
The full text for all H-statements is displayed in section 16.

This substance/ mixture contains nanoforms

SECTION 4: First aid measures

4.1 Description of necessary first-aid measures

General information: Remove soiled or soaked clothing immediately

Inhalation: fresh air supply, consult a doctor if feeling unwell.

Skin Contact: In case of contact with skin wash off with soap and water. In case of discomfort: Supply with medical care.

Eye contact: In case of contact with eyes rinse thoroughly with water. In case of discomfort: Supply with medical care.

Ingestion: Thoroughly clean the mouth with water In case of discomfort: Supply with medical care.

Personal Protection for First-aid Responders: No data available.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: Up to now no symptoms are known.

Hazards: No data available.

4.3 Indication of immediate medical attention and special treatment needed

Treatment: Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: foam, carbon dioxide, dry powder, water spray.

Unsuitable extinguishing media: High volume water jet.

5.2 Special hazards arising from the substance or mixture:

In the event of fire the following can be released: - Carbon monoxide, carbon dioxide, silicon dioxide Under certain conditions of combustion traces of other toxic substances cannot be excluded

5.3 Advice for firefighters

Special fire fighting procedures: No specific precautions.

Special protective equipment for fire-fighters: Do not inhale explosion and/or combusition gases. Use self-contained breathing apparatus and wear protective suit

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment.
6.1.1 For non-emergency personnel:	No data available.
6.1.2 For emergency responders:	No data available.
6.2 Environmental Precautions:	Do not allow to enter drains or waterways Prevent product from getting into subsoil/soil.
6.3 Methods and material for containment and cleaning up:	Take up with absorbent material (eg sand, kieselguhr, universal binder) Dispose of absorbed material in accordance with the regulations.
6.4 Reference to other sections:	For further information on exposure monitoring and disposal see sections 8 and 13.

SECTION 7: Handling and storage:

7.1 Precautions for safe handling

Technical measures (e.g. Local and general ventilation):	No data available.
Safe handling advice:	Provide good ventilation of working area (local exhaust ventilation if necessary).Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes.
Contact avoidance measures:	No data available.

7.2 Conditions for safe storage, including any incompatibilities

Safe storage conditions:	Keep container tightly closed in a cool, well-ventilated place.Homogenise before using.
Safe packaging materials:	No data available.
7.3 Specific end use(s):	No further recommendations.

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

Occupational Exposure Limits

None of the components have assigned exposure limits.

Biological Limit Values

No biological exposure limits noted for the ingredient(s).

DNEL-Values

Remarks: DNEL-Values

Critical component	Type	Route of Exposure	Health Warnings	Remarks
octamethylcyclotetrasiloxane	General population	Inhalation	Systemic, long-term; 13 mg/m3	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 73 mg/m3	Repeated dose toxicity
	Workers	Inhalation	Local, long-term; 73 mg/m3	Repeated dose toxicity
	General population	Inhalation	Local, long-term; 13 mg/m3	Repeated dose toxicity
	Workers	Eyes	Local effects;	No hazard identified
	General population	Eyes	Local effects;	No hazard identified
	General population	Oral	Systemic, long-term; 3,7 mg/kg	Repeated dose toxicity

PNEC-Values
Remarks: PNEC-Values

Critical component	Environmental compartment	PNEC-Values	Remarks
octamethylcyclotetrasiloxane	Predator	41 mg/kg	Oral
	Soil	0,54 mg/kg	
	Sewage treatment plant	10 mg/l	
	freshwater sediment	3 mg/kg	
	freshwater	1,5 µg/l	
	marine water sediment	0,3 mg/kg	
	marine water	0,15 µg/l	

8.2 Exposure controls

Appropriate Engineering Controls: No data available.

Individual protection measures, such as personal protective equipment

Eye/face protection: Safety glasses

Hand Protection: Additional Information: The protective gloves to be worn must satisfy the specifications of Regulation (EU) 2016/425 and the resulting Standard EN374., Specific workplace situations must be considered separately.
Material: Nitrile rubber.
Break-through time: 480 min
Glove thickness: 0,11 mm
Material: Natural rubber.
Break-through time: 480 min
Glove thickness: 0,5 mm
Material: Chloroprene
Break-through time: 480 min
Glove thickness: 0,65 mm
Material: Butyl rubber.
Break-through time: 480 min
Glove thickness: 0,7 mm

Skin and Body Protection: protective clothing

Respiratory Protection: in case of formation of vapours/aerosols: Short term: filter apparatus, combination filter A-P2

Hygiene measures: Wash hands before breaks and immediately after handling the product. When using do not eat, drink or smoke. Remove soiled or soaked clothing immediately.

Environmental Controls:	The environmental regulations on the control and monitoring of environmental exposures are to be observed.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	
Physical state:	liquid
Form:	liquid
Color:	White
Odor:	solvent-like
Odor Threshold:	not measured
Freezing point:	not measured
Boiling Point:	100 °C
Flammability:	not measured
Upper/lower limit on flammability or explosive limits	
Explosive limit - upper:	not measured
Explosive limit - lower:	not measured
Flash Point:	> 93 °C (DIN EN 22719)
Self Ignition Temperature:	not measured
Decomposition Temperature:	not measured
pH:	Not applicable
Viscosity	
Dynamic viscosity:	20 - 40 mPa.s (25 °C, DIN 53015)
Kinematic viscosity:	21 - 42 mm2/s (25 °C, calculated)
Flow Time:	No data available.
Solubility(ies)	
Solubility in Water:	Insoluble
Solubility (other):	not measured
Dissolution Rate:	No data available.
Partition coefficient (n-octanol/water):	not measured
Dispersion Stability:	No data available.
Vapor pressure:	not measured
Relative density:	not measured
Density:	0,96 g/cm3 (25 °C) (DIN 51757)
Bulk density:	No data available.
Relative vapor density:	not measured
Particle characteristics	
Particle Size:	No data available.
Particle Size Distribution:	No data available.
Dustiness:	No data available.
Specific surface area:	No data available.
Surface charge/Zeta potential:	No data available.
Assessment:	Assessment: This substance/ mixture contains nanoforms; based on: Expert judgement;
Shape:	No data available.

Crystallinity:	No data available.
Surface treatment:	No data available.

9.2 Other information

Explosive properties:	not measured
Oxidizing properties:	not oxidizing
Minimum ignition temperature:	not measured
Metal Corrosion:	Not corrosive to metals
Evaporation Rate:	not measured

SECTION 10: Stability and reactivity

10.1 Reactivity:	see section "Possibility of hazardous reactions".
10.2 Chemical Stability:	The product is stable under normal conditions.
10.3 Possibility of hazardous reactions:	No hazardous reactions with proper storage and handling
10.4 Conditions to avoid:	None with proper storage and handling.
10.5 Incompatible Materials:	Not known.
10.6 Hazardous Decomposition Products:	None with proper storage and handling.

SECTION 11: Toxicological information

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

Information on likely routes of exposure

Inhalation:	Information on effects are given below.
Skin Contact:	Information on effects are given below.
Eye contact:	Information on effects are given below.
Ingestion:	Information on effects are given below.

Acute toxicity (list all possible routes of exposure)

Oral

Product:	No data available.
Components:	
octamethylcyclotetrasiloxane	LD 50 (Rat, Male) : > 5.000 mg/kg

Dermal

Product:	No data available.
Components:	
octamethylcyclotetrasiloxane	LD 50 (Rat, Female, Male) : > 5.000 mg/kg

Inhalation

Product:	No data available.
Components:	
octamethylcyclotetrasiloxane	LC 50 (Rat, Female, Male, 4 h): 36 mg/l Vapour Dusts, mists and fumes, No data available.

Repeated dose toxicity

Product:	No data available.
Components:	
octamethylcyclotetrasiloxane	NOAEC (Rat(Female, Male), Inhalation(Vapour) , 5 days/weeks, 6 hours/day): 1,8 mg/l Subchronic toxicity LOAEC (Rat(Female, Male), Inhalation(Vapour) , 5 days/weeks, 6 hours/day): 8,5 mg/l chronic NOAEC (Rat(Female, Male), Inhalation(Vapour) , 5 days/weeks, 6 hours/day): 0,36 mg/l Subacute toxicity

Skin Corrosion/Irritation

Product:	No data available.
Components:	
octamethylcyclotetrasiloxane	OECD 404 (Rabbit): Not irritating

Serious Eye Damage/Eye Irritation

Product:	No data available.
Components:	
octamethylcyclotetrasiloxane	OECD 405 (Rabbit): Not irritating

Respiratory or Skin Sensitization

Product:	No data available.
Components:	
octamethylcyclotetrasiloxane	Magnussona i Kligmana., OECD 406 (Rabbit): Not a skin sensitizer. Sensitization test (Human): Not a skin sensitizer. Maximization Test, OECD 406 (Guinea Pig): Not a skin sensitizer.

Carcinogenicity

Product:	No data available.
Components:	
octamethylcyclotetrasiloxane	No data available.

Germ Cell Mutagenicity

No data available.

In vitro

Product:	No data available.
Components:	
octamethylcyclotetrasiloxane	Ames test (OECD 471): negative Chromosomal aberration (OECD 473): negative gene mutation test (OECD 476): negative

In vivo

Product:	No data available.
Components:	
octamethylcyclotetrasiloxane	Micronucleus test (OECD 474) Inhalation - vapor (Rat): negative Chromosomal aberration (OECD 478) Oral (Rat): negative Chromosomal aberration (OECD 475) Inhalation - vapor (Rat, Female, Male): negative

Reproductive toxicity

Product:	No data available.
Components:	
octamethylcyclotetrasiloxane	Suspected of damaging fertility or the unborn child. Suspected of damaging fertility.

Specific Target Organ Toxicity - Single Exposure

Product:	No data available.
Components:	
octamethylcyclotetrasiloxane	No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product:	No data available.
Components:	
octamethylcyclotetrasiloxane	No data available.

Aspiration Hazard

Product:	Not classified
Components:	
octamethylcyclotetrasiloxane	Not classified

11.2 Information on other hazards

Endocrine disrupting properties

Product:	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.;
Components:	
octamethylcyclotetrasiloxane	No data available.

Other hazards

Product:	The properties of this product which are hazardous to health have been calculated as per regulation (EC) No. 1272/2008. See section 2 "Hazards Identification".;

SECTION 12: Ecological information

12.1 Toxicity:

Acute hazards to the aquatic environment:

Fish

Product:	No data available.
Components:	
octamethylcyclotetrasiloxane	LC 50 (Oncorhynchus mykiss, 96 h): > 22 µg/l NOEC (Oncorhynchus mykiss, 96 h): 22 µg/l

Aquatic Invertebrates

Product:	No data available.
Components:	
octamethylcyclotetrasiloxane	NOEC (Daphnia magna, 48 h): 15 µg/l EC 50 (Daphnia magna, 48 h): > 15 µg/l

Toxicity to Aquatic Plants

Product:	No data available.
Components:	
octamethylcyclotetrasiloxane	EC 50 (Algae (Pseudokirchneriella subcapitata), 96 h): > 22 µg/l (US-EPA-method) EC 50 (Algae (Pseudokirchneriella subcapitata), 96 h): > 22 µg/l (US-EPA-method)

Toxicity to microorganisms

Product:	No data available.
Components:	
octamethylcyclotetrasiloxane	No data available.

Chronic hazards to the aquatic environment:

Fish

Product:	No data available.
Components:	
octamethylcyclotetrasiloxane	NOEC (Oncorhynchus mykiss, 93 d): 4,4 µg/l (US-EPA-method)

Aquatic Invertebrates

Product:	No data available.
Components:	
octamethylcyclotetrasiloxane	NOEC (Daphnia magna, 21 d): 15 µg/l (EPA OTS 797.1330) Lowest Observed Effect Concentration (Daphnia magna, 21 d): 15 µg/l (EPA OTS 797.1330) EC 50 (Daphnia magna, 21 d): > 15 µg/l (EPA OTS 797.1330)

Toxicity to Aquatic Plants

Product:	No data available.
Components:	
octamethylcyclotetrasiloxane	NOEC (Algae (Pseudokirchneriella subcapitata), 96 h): < 22 µg/l (US-EPA-method)

Toxicity to microorganisms

Product:	No data available.
Components:	
octamethylcyclotetrasiloxane	No data available.

12.2 Persistence and Degradability

Biodegradation

Product:	No data available.
Components:	
octamethylcyclotetrasiloxane	3,7 % (28 d, OECD 310) The product is not biodegradable., aerobic

BOD/COD Ratio

Product:	No data available.
Components:	
octamethylcyclotetrasiloxane	No data available.

12.3 Bioaccumulative potential

Bioconcentration Factor (BCF)

Product:	No data available.

Components:

octamethylcyclotetrasiloxane	No data available.

Partition Coefficient n-octanol / water (log Kow)

Product:	Log Kow: not measured
Components:	
octamethylcyclotetrasiloxane	Log Kow: 6,488 25,1 °C (OECD 123)

12.4 Mobility in soil:

Product	No data available.
Components:	
octamethylcyclotetrasiloxane	No data available.

12.5 Results of PBT and vPvB assessment:

Product	No data available.
Components:	
octamethylcyclotetrasiloxane	vPvB: very persistent and very bioaccumulative substance. PBT: persistent, bioaccumulative and toxic substance.

12.6 Endocrine disrupting properties:

Product:	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.
Components:	
octamethylcyclotetrasiloxane	No data available.

12.7 Other adverse effects:

Other hazards

Product:	The product is classified as slightly hazardous to waters (according to the German Regulation on the Classification of Substances Hazardous to Waters (WwSV). Do not allow to enter soil, waterways or waste water canal. Based on expert judgement and on experimental data within an analogue approach, the maximum estimated aqueous concentration of typical impurities of siloxane polymers, migrating into water is below their established no-effect threshold value for aquatic organisms.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

General information:	No data available.
Disposal methods:	In accordance with local authority regulations, take to special waste incineration plant

Contaminated Packaging: If empty contaminated containers are recycled or disposed of, the receiver must be informed about possible hazards.

SECTION 14: Transport information

14.1 UN/ID No.

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Remarks : FOR USA ONLY: In packagings > 450 L this Product must be classified, placarded, marked and shipped as Combustible Liquid in the USA.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

EU Regulations

Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use:

Chemical name	CAS-No.	Concentration	The packaging shall be visibly, legibly and indelibly marked as follows:
octamethylcyclotetrasiloxane	556-67-2		none

EU. Directive 2012/18/EU (SEVESO III) on major accident hazards involving dangerous substances, Annex I: Not applicable

15.2 Chemical safety assessment: No chemical safety assessment was carried out for this product.

SECTION 16: Other information

Abbreviations and acronyms:

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; **ADN -** European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; **AGW -** Occupational exposure limit; **ASTM -** American Society for Testing and Materials; **AwSV -** Ordinance on facilities for handling substances that are

hazardous to water; **BSB -** Biochemical oxygen demand; **c.c. -** closed cup; **CAS -** Chemical Abstract Services; **CESIO -** European Committee of Organic Surfactants and their Intermediates; **CSB -** Chemical oxygen demand; **DMEL -** Derived minimum effect level; **DNEL -** Derived no effect level; **EbC50 -** median concentration in terms of reduction of growth; **EC -** Effective concentration; **EINECS -** European Inventory of Existing Commercial Chemical Substances; **EN -** European norm; **ErC50 -** median concentration in terms of reduction of growth rate; **GGVSEB -** German ordinance for road, rail and inland waterway transportation of dangerous goods; **GGVSee -** German ordinance for sea transportation of dangerous goods; **GLP -** Good Laboratory Practice; **GMO -** Genetic Modified Organism; **IATA -** International Air Transport Association; **ICAO -** International Civil Aviation Organization; **IMDG -** International Maritime Dangerous Goods; **ISO -** International Organization For Standardization; **LD/LC -** lethal dosis/concentration; **LOAEL -** Lowest observed adverse effect level; **LOEL -** Lowest observed effect level; **M-Factor -** multiplying factor; **NOAEL -** No observed adverse effect level; **NOEC -** no observed effect concentration; **NOEL -** no observed effect level; **o.c. -** open cup; **OECD -** Organisation for Economic Cooperation and Development; **OEL -** Occupational Exposure Limit; **PBT -** Persistent, bioaccumulative, toxic; **PNEC -** Predicted no effect concentration; **REACH -** REACH registration; **RID -** Convention concerning International Carriage by Rail; **SVHC -** Substances of Very High Concern; **TA -** Technical Instructions; **TRGS -** Technical Rules for Hazardous Substances; **vPvB -** very persistent, very bioaccumulative; **WGK -** Water Hazard Class

Key literature references and sources for data: No data available.

Wording of the H-statements in section 2 and 3

H226	Flammable liquid and vapor.
H361f	Suspected of damaging fertility.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Training information: Comply with national laws regulating employee instruction.

Revision Information Changes since the last version are highlighted in the margin. This version replaces all previous versions.

Disclaimer: This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.