BREAK-THRU® S 301

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

1.1 Product identifier

Trade name	:	BREAK-THRU® S 301
REACH Registration Number	:	if available listed in Chapter. 3
CAS-No.	:	134180-76-0
EC-No.	:	603-798-4

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

Use of the Substance/Mixture	:	For industrial use

1.3 Details of the supplier of the safety data sheet

Company	:	Alzchem Trostberg GmbH Dr.-Albert-Frank-Str. 32 83308 Trostberg, Germany
Telephone	:	+49 8621 86-3351
E-mail address of person responsible for the SDS	:	alz-pst@alzchem.com

1.4 Emergency telephone number

Emergency telephone number	:	+49 8621 86-2776 Alzchem Trostberg GmbH, Fire Brigade

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4	H332: Harmful if inhaled.
Eye irritation, Category 2	H319: Causes serious eye irritation.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal word : Warning

Hazard statements :

H319	Causes serious eye irritation.
H332	Harmful if inhaled.

Precautionary statements : **Prevention:**

P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/

spray.

P264 Wash face, hands and any exposed skin thoroughly after handling.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P312 Call a POISON CENTER/ doctor if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

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

3.1 Substances

Substance name : Polyethersiloxan

Components

Chemical name	CAS-No. EC-No.	Concentration (% w/w)	M-Factor, SCL, ATE
Polyether modified Trisiloxane	134180-76-0 603-798-4	>= 75	

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Seek medical advice in case of symptoms caused by eye or skin contact, inhalation or swallowing.

If inhaled : Remove to fresh air.

In case of skin contact : Wash off with plenty of water and soap.

In case of eye contact	:	Open the eyes and rinse thoroughly with plenty of water.
If swallowed	:	Clean mouth with water and drink afterwards plenty of water.

4.2 Most important symptoms and effects, both acute and delayed

None known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment	:	Symptomatic treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Water spray, foam, CO2, dry powder.
Unsuitable extinguishing media	:	high volume water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products	:	carbon dioxide Carbon monoxide silica

5.3 Advice for firefighters

Special protective equipment for firefighters	:	In the case of fire, wear respiratory protective equipment independent of surrounding air and chemical protective suit.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Wear personal protective equipment; see section 8. Assure sufficient ventilation.

6.2 Environmental precautions

Environmental precautions	:	Product or extinguishing water with product must not be allowed to enter soil, sewers or natural bodies of water.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	:	Absorb with liquid-binding material, e. g.: diatomaceous earth, sand, universal binder Keep in suitable, closed containers for disposal. Ventilate room thoroughly

6.4 Reference to other sections

For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	:	Provide sufficient ventilation and exhaust at the workplace. Do not allow individual / bulk containers to stand open
Advice on protection against fire and explosion	:	No special precautions required.
Hygiene measures	:	Avoid contact with skin, eyes and clothing. Do not inhale vapours / aerosols. Wash contact areas after handling. Take off clothing and shoes contaminated with product. Clean before reuse. Do not eat, drink, smoke, or sniff while at work. Wash your hands and/or face before breaks and before termination of work. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Further information on storage conditions	:	Keep containers tightly closed in a dry, cool and well-ventilated place.
Storage class	:	10,Combustible liquids

7.3 Specific end use(s)

Specific use(s)	:	We are unaware of any specific end uses which go beyond the data reported in Section 1.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006

Substance name	End Use	Exposure routes	Potential health effects	Value
Polyether modified Trisiloxane	DNEL not necessary (polymer)			

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006

Substance name	Environmental Compartment	Value
Polyether modified Trisiloxane	PNEC not necessary (polymer)	

8.2 Exposure controls

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection	:	Safety glasses
Hand protection		
Material	:	Nitrile rubber, Recommendation: Camatril 730
Break through time	:	480 min
Glove thickness	:	0,11 mm

Manufacturer	:	Kächele-Cama Latex GmbH (KCL), Germany
Skin and body protection	:	Protective clothing If intensive contact with the hazardous material cannot be avoided with certainty, order (depending on the hazard involved) additional protective measures for example chemical protective suit.
Respiratory protection	:	If aerosol or mists are formed: use respiratory equipment with suitable filter. Suitable filter: A-P2, code colour brown-white

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	liquid (20 °C, 1013 hPa)
Form	:	liquid
Colour	:	yellow
Odour	:	characteristic
Melting point/ range	:	< 0 °C
Boiling point/boiling range	:	> 200 °C
Upper explosion limit / upper flammability limit	:	not determined
Lower explosion limit / Lower flammability limit	:	not determined
Flash point	:	> 149 °C Method: DIN 2719
Auto-ignition temperature	:	no data available
Decomposition temperature	:	no data available
pH	:	6 - 8 (25 °C) Concentration: 4 %
Viscosity		
Viscosity, dynamic	:	50 - 100 mPa.s (25 °C)
Viscosity, kinematic	:	45 - 91 mm2/s (25 °C) Method: calculated
Solubility(ies)		
Water solubility	:	soluble

Partition coefficient: n-octanol/water	:	not determined
Vapour pressure	:	not determined
Density	:	1,0 - 1,1 g/cm3 (25 °C) Method: DIN 51757
Relative vapour density	:	no data available
Particle characteristics Assessment	:	no data available

9.2 Other information

Explosives	:	no data available
Oxidizing properties	:	not applicable
Self-ignition	:	335 °C

SECTION 10: Stability and reactivity

10.1 Reactivity

See section 10.3

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : No hazardous reactions are known if properly handled and stored.

10.4 Conditions to avoid

Conditions to avoid : frost.

10.5 Incompatible materials

Materials to avoid : None known.

10.6 Hazardous decomposition products

When correctly handled:
None known

SECTION 11: Toxicological information

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

Acute toxicity

Product:

Acute inhalation toxicity : Assessment: Harmful if inhaled.

Components:

Polyether modified Trisiloxane:

Acute oral toxicity : LD50 (rat): 3200 mg/kg
Method: OECD Test Guideline 401
Assessment: Based on available data, the classification criteria are not met.
Remarks: The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).
literature

Acute inhalation toxicity : LC50 (rat): 1,08 mg/l
Exposure time: 4 h
Test atmosphere: Aerosol
Method: OECD Test Guideline 403
Assessment: Harmful if inhaled.
Remarks: The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).
literature

Acute dermal toxicity : LD50 (rat): > 2000 mg/kg
Remarks: The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).
literature

Skin corrosion/irritation

Components:

Polyether modified Trisiloxane:

Result : not irritating
Remarks : The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).
literature

Serious eye damage/eye irritation

Product:

Assessment : Causes serious eye irritation.

Components:

Polyether modified Trisiloxane:

Species : Rabbit
Result : highly irritative
Remarks : The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).
literature

Respiratory or skin sensitisation

Components:

Polyether modified Trisiloxane:

Species	:	Guinea pig
Result	:	not sensitizing
Remarks	:	The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). literature

Germ cell mutagenicity

Components:

Polyether modified Trisiloxane:

Genotoxicity in vitro	:	Test Type: Chromosome aberration test in vitro Test system: Chinese hamster ovary cells Metabolic activation: with or without Method: OECD TG 473 Result: Non clastogenic Remarks: The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). literature
Genotoxicity in vivo	:	Test Type: In vivo micronucleus test Species: Mouse Application Route: intraperitoneal Result: negative Remarks: The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). literature
Germ cell mutagenicity- Assessment	:	negative in the in vitro chromosome aberration test, Not mutagenic in the micronucleus test with mice., This information is derived from evaluation of or a test result for a similar compound (conclusion based on analogy)., literature

Carcinogenicity

Components:

Polyether modified Trisiloxane:

Carcinogenicity - Assessment	:	No data available

Reproductive toxicity

Components:

Polyether modified Trisiloxane:

Reproductive toxicity - Assessment	:	No data available

STOT - single exposure

Components:

Polyether modified Trisiloxane:

Remarks	:	No data available

STOT - repeated exposure

Components:

Polyether modified Trisiloxane:

Remarks	:	No data available

Repeated dose toxicity

Components:

Polyether modified Trisiloxane:

Species	:	Rat
NOAEL	:	200 mg/kg
Application Route	:	Oral
Method	:	OECD 407
Remarks	:	literature

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment	:	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.

Further information

Product:

Remarks	:	No toxicological tests are available on the product.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Ecotoxicology Assessment

Acute aquatic toxicity	:	Based on available data, the classification criteria are not met.
Chronic aquatic toxicity	:	Based on available data, the classification criteria are not met.

Components:

Polyether modified Trisiloxane:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss): 2,1 mg/l Exposure time: 96 h Remarks: The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). literature
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna): 34,9 mg/l Exposure time: 48 h Remarks: literature
Toxicity to algae/aquatic plants	:	Remarks: no data available

Ecotoxicology Assessment

Acute aquatic toxicity	:	Based on available data, the classification criteria are not met.
Chronic aquatic toxicity	:	Based on available data, the classification criteria are not met.

12.2 Persistence and degradability

Components:

Polyether modified Trisiloxane:

Biodegradability	:	Test Type: aerobic Result: Readily biodegradable Biodegradation: > 60 % Exposure time: 28 d Method: OECD TG 301 F Remarks: literature

12.3 Bioaccumulative potential

Components:

Polyether modified Trisiloxane:

Bioaccumulation	:	Remarks: no data available.

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

Product:

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.

12.6 Endocrine disrupting properties

Product:

Assessment : 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

Product:

Additional ecological information : Avoid release to the environment.
No further ecotoxicological data are available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Must be brought to an adequate waste treatment facility, in conformity with applicable waste disposal regulations.

Contaminated packaging : Packaging, that can not be reused after cleaning must be disposed or recycled in accordance with all federal, national and local regulations.

SECTION 14: Transport information

14.1 UN number or ID number

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA : Not regulated as a dangerous good

14.2 UN proper shipping name

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA : Not regulated as a dangerous good

14.3 Transport hazard class(es)

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA : Not regulated as a dangerous good

14.4 Packing group

Remarks : Not classified as dangerous in the meaning of transport regulations.

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good
Remarks : Not classified as dangerous in the meaning of transport regulations.

IATA (Cargo) : Not regulated as a dangerous good
Remarks : Not classified as dangerous in the meaning of transport regulations.

IATA (Passenger) : Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Remarks : Not classified as dangerous in the meaning of transport regulations.

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

15.2 Chemical safety assessment

No substance safety assessment is required for this product.

SECTION 16: Other information

Full text of other abbreviations

Acute Tox. : Acute toxicity
Eye Irrit. : Eye irritation

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardization; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organization for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

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.

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