

METHYLTRIGLYCOL pure

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Substance key: SXR105375

Revision Date: 05.04.2018

Version : 3 - 4 / EU

Date of printing : 17.09.2018

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

1.1. Product identifier

Trade name

METHYLTRIGLYCOL pure

Material number: 138777

Identification of the substance according to its REACH registration

2-(2-(2-methoxyethoxy) ethoxy) ethanol

REACH - Registration number 01-2119475101-50-0001
according to article 20(3):

Chemical nature: Triethylene glycol monomethyl ether; 2-[2-(2-methoxy ethoxy)ethoxy]-ethanol

CAS number : 112-35-6

EC number : 203-962-1

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

Relevant identified uses of the substance or mixture

Industry sector : Functional Fluids
Type of use : Brake fluid.
Intermediate

1.3. Details of the supplier of the safety data sheet

Identification of the company

Clariant Produkte (Deutschland) GmbH
65926 Frankfurt am Main
Telephone no. : +49 69 305 18000

Information about the substance/mixture

BU Industrial & Consumer Specialties
Product Stewardship
e-mail: SDS.Europe@clariant.com

1.4. Emergency telephone number

00800-5121 5121 (24 h)

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

Labelling (REGULATION (EC) No 1272/2008)
Not a hazardous substance or mixture.

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2.3 Other hazards

After consideration of all available toxicity and ecotoxicity data it is concluded that the substance does not fulfil the PBT or vPvB criteria.

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.

According to the present state of knowledge provided this product is handled correctly, there is no danger to humans or the environment

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name : Triethylene glycol monomethyl ether; 2-[2-(2-methoxyethoxy)ethoxy]-ethanol

EC-No. : 203-962-1

Hazardous components

Remarks : No hazardous ingredients

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Remove/Take off immediately all contaminated clothing.

If inhaled : If inhaled, remove to fresh air.
Get medical advice/ attention.

In case of skin contact : In case of contact, immediately flush skin with plenty of water.

In case of eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

If swallowed : Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No symptoms known currently.

Risks : No hazards known at this time.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam
Water spray jet
Carbon dioxide (CO₂)
Dry powder
Cool containers/tanks with water spray.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : In case of fires, hazardous combustion gases are formed:
Carbon monoxide (CO)
Carbon dioxide (CO₂)
Nitrogen oxides (NO_x)

5.3 Advice for firefighters

Special protective equipment for firefighters : Self-contained breathing apparatus
Further information : Wear suitable protective equipment.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Wear suitable protective equipment.

6.2 Environmental precautions

Environmental precautions : Do not allow to enter drains or waterways

6.3 Methods and material 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

Information regarding Safe handling, see chapter 7., For personal protection see section 8., For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Ensure adequate ventilation.
Take measures to prevent the build up of electrostatic charge.

Advice on protection against fire and explosion : Observe the general rules of industrial fire protection

Hygiene measures : Wash hands before breaks and at the end of workday. Use

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protective skin cream before handling the product. Take off immediately all contaminated clothing and wash it before reuse.

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : Storage: do not use light metal containers
- Further information on storage conditions : Do not leave vessels/containers open Prevent entry of air/oxygen (peroxide formation)
- Advice on common storage : No conditions to be specially mentioned.
- Further information on storage stability : no data available

7.3 Specific end use(s)

- Specific use(s) : No further recommendations.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

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

Substance name	End Use	Exposure routes	Potential health effects	Value
Methyl Triglycol pure CAS-No.: 112-35-6	Workers	Dermal	Long-term systemic effects	40 mg/kg bw/day
Remarks:	DNEL			
	Workers	Inhalation	Long-term systemic effects	156 mg/m3
Remarks:	DNEL			
	General population	Dermal	Long-term systemic effects	20 mg/kg bw/day
Remarks:	DNEL			
	General population	Inhalation	Long-term systemic effects	93 mg/m3
Remarks:	DNEL			
	General population	Oral	Long-term systemic effects	2 mg/kg bw/day
Remarks:	DNEL			

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

Substance name	Environmental Compartment	Value
Methyl Triglycol pure CAS-No.: 112-35-6	Fresh water	10 mg/l
	salt water	1 mg/l
	Water (intermittent release)	50 mg/l
	Fresh water sediment	36,6 mg/kg dry

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		weight (d.w.)
	Marine sediment	0,8 mg/kg dry weight (d.w.)
	Soil	1,73 mg/kg dry weight (d.w.)
	Sewage treatment plant	200 mg/l
	Oral	89 mg/kg food

8.2 Exposure controls

Personal protective equipment

Eye protection : Safety glasses with side-shields

Hand protection

Break through time : 480 min

Glove thickness : 0,7 mm

Remarks : Long-term exposure Impervious butyl rubber gloves

Break through time : 30 min

Glove thickness : 0,4 mm

Remarks : For short-term exposure (splash protection): Nitrile rubber gloves.

Remarks : These types of protective gloves are offered by various manufacturers. Please note the manufacturers' detailed statements, especially about the minimum thickness and the minimum breakthrough time. Consider also the particular working conditions under which the gloves are being used.

Respiratory protection : Use respiratory protection in case of insufficient exhaust ventilation or prolonged exposure
Full mask to standard DIN EN 136
Filter A (organic gases and vapours) to standard DIN EN 141
The use of filter apparatus presupposes that the environment atmosphere contains at least 17% oxygen by volume, and does not exceed the maximum gas concentration, usually 0.5% by volume. Relevant guidelines to be considered include EN 136/141/143/371/372 as well as other national regulations.

Protective measures : Avoid contact with skin and eyes.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : Liquid

Colour : colourless

Odour : odourless

Odour Threshold : not available

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pH	:	neutral
Melting point	:	-44 °C Method: DIN 51583 229 K (1.013 hPa)
Boiling point	:	523 K (1.013 hPa)
Flash point	:	110 °C(1.013 hPa) Method: DIN 51758
Evaporation rate	:	not available
Burning number	:	Not applicable
Upper explosion limit / upper flammability limit	:	9,9 %(V)
Lower explosion limit / Lower flammability limit	:	1,3 %(V)
Vapour pressure	:	0,1 mbar (20 °C)
Relative vapour density	:	not available
Relative density	:	not available
Density	:	approx. 1,05 g/cm ³ (20 °C) Method: DIN 51757
Bulk density	:	Not applicable
Solubility(ies) Water solubility	:	miscible (20 °C)
Partition coefficient: n-octanol/water	:	log Pow: -1,12 (20 °C) Method: OECD Test Guideline 117
Auto-ignition temperature	:	approx. 210 °C Method: DIN 51794 483 K (1.013 hPa)
Decomposition temperature	:	> 300 °C
Viscosity Viscosity, dynamic	:	7,3 mPa.s (20 °C)
Viscosity, kinematic	:	7 - 7,5 mm ² /s (20 °C)

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Flow time	:	not available
Explosive properties	:	There are no chemical groups associated with explosive properties present in the molecule.
Oxidizing properties	:	There are no chemical groups associated with oxidising properties present in the molecule.

9.2 Other information

Molecular weight	:	164,2 g/mol
Minimum ignition energy	:	not available
Particle size	:	Not applicable
Self-ignition	:	Not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity

See section 10.3. "Possibility of hazardous reactions"

10.2 Chemical stability

Stable under normal conditions.
hygroscopic

10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.
No decomposition if used as directed.

10.4 Conditions to avoid

Conditions to avoid : None known.

10.5 Incompatible materials

Materials to avoid : no data available

10.6 Hazardous decomposition products

When handled and stored appropriately, no dangerous decomposition products are known

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute oral toxicity	:	LD50 (Rat, male and female): > 10.500 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity	:	LC0 (Rat, male and female): > 10 ppm

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Exposure time: 8 h
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg

Skin corrosion/irritation

Product:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

Serious eye damage/eye irritation

Product:

Species : rabbit eye
Method : OECD Test Guideline 405
Result : No eye irritation

Respiratory or skin sensitisation

Product:

Test Type : Guinea pig maximization test
Species : Guinea pig
Method : OECD Test Guideline 406
Result : non-sensitizing
Remarks : not tested.

Germ cell mutagenicity

Product:

Germ cell mutagenicity-
Assessment : It is concluded that the product is not mutagenic based on
evaluation of several mutagenicity tests.

Carcinogenicity

Product:

Carcinogenicity -
Assessment : No information available.

Reproductive toxicity

Product:

Effects on foetal
development : Test Type: reproductive and developmental toxicity study
Species: Rabbit
Strain: New Zealand white
Dose: 0, 250, 500, 1000, 1500 mg/kg
General Toxicity Maternal: NOAEL: 500 - 1.000 mg/kg body
weight
Developmental Toxicity: NOEL: 1.000 mg/kg body weight
Method: Other

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Reproductive toxicity - Assessment : No teratogenic effects to be expected.

No reproductive toxicity to be expected.

STOT - single exposure

Product:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

Product:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Product:

Species : Rats (Male/Female)
NOAEL : 400 mg/kg
LOAEL : 1.200 mg/kg
Application Route : Drinking water
Method : OECD Test Guideline 408

Species : Rats (Male/Female)
NOAEL : 4.000 mg/kg
Application Route : Dermal
Method : Repeated Dose Toxicity (subchronic study)

Aspiration toxicity

Product:

no data available

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : LC0 (Danio rerio (zebra fish)): > 5.000 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 500 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): > 500 mg/l
Exposure time: 72 h

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Toxicity to fish (Chronic toxicity) : Remarks: no data available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Remarks: no data available

Toxicity to microorganisms : EC0 (activated sludge): > 2.000 mg/l
Exposure time: 30 min
Method: OECD Test Guideline 209

12.2 Persistence and degradability

Product:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 100 %
Exposure time: 13 d
Method: OECD Test Guideline 301B

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Low potential for bioaccumulation (log Pow < 3).

12.4 Mobility in soil

Product:

Distribution among environmental compartments : Remarks: Not expected to adsorb on soil.

12.5 Results of PBT and vPvB assessment

Product:

Assessment : After consideration of all available toxicity and ecotoxicity data it is concluded that the substance does not fulfil the PBT or vPvB criteria.
.
: 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 Other adverse effects

Product:

Additional ecological information : If handled correctly it causes no disturbance in treatment plants.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

- Product : In accordance with regulations for special waste, must be taken to an authorised special waste incineration plant.
- Contaminated packaging : Packaging that cannot be cleaned should be disposed of as product waste

SECTION 14: Transport information

Section 14.1. to 14.5.

ADR	not restricted
ADN	not restricted
RID	not restricted
IATA	not restricted
IMDG	not restricted

14.6. Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code (International Bulk Chemicals Code)

No transport as bulk according IBC - Code.

SECTION 15: Regulatory information

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

Other regulations:

Theshold limit value (German MAK-value) not determined.

Apart from the data/regulations specified in this chapter, no further information is available concerning safety, health and environmental protection.

The components of this product are reported in the following inventories:

- EINECS : Listed
Notification number: 203-962-1
1990-06-15
- ECHA Registered Substances : Listed
Full - Indicates registration under REACH Article 10 as a full dossier
Notification number: 203-962-1
2011-10-19

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15.2 Chemical safety assessment

Chemical Safety Assessments have been carried out for these substances.

SECTION 16: Other information

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; 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 Standardisation; 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 Organisation for Standardization; KECl - 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, Authorisation 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; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Other information : Observe national and local legal requirements

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national and international regulations and laws, the status of our products could change. Material Safety Data Sheets providing safety precautions, that should be observed when handling or storing Clariant products, are available upon request and are provided in compliance with applicable law. You should obtain and review the applicable Material Safety Data Sheet information before handling any of these products. For additional information, please contact Clariant.

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