



Safety data sheet

in accordance with the Regulation 1907/2006/EC
Revision date: 29-04-2021 Version: 1.2

SECTION 1: Index of the substance or mixture and the company

1.1. Product identifier

Trade name : NeoProtec GT-em
Product group : Friction modifier

1.2. Relevant identified methods of application of the substance or mixture and methods that are not recommended

Application : Engine and transmission oil antifriction additive

Contraindications : No data available

1.3. Details of the supplier who provided the security certificate

Name of the supplier Ltd MTC «Ukrinterchem»
Address of the supplier Yu Tselevich, 1
Ivano-Frankivsk
76008, Ukraine
Email: info@neoprotec.com.ua
Telephone +38 (0)994097979

1.4. Telephone for emergency calls

Emergency assistance/directory service : +38 (0) 994097979 (Mon. – Fri. : from 8:00 till 17:00)

SECTION 2: Potential hazards

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Is not a hazardous substance or mixture.

2.2. Label elements

Does not need labeling.

SECTION 3: Composition/information about components

Substances

Not applicable

Mixtures

Chemical characteristics:

Organic polyfunctional silicon oligo compounds

Hazardous components		
EU-No	CAS Number	Substance
201-083-8	78-10-4	tetraethyl silicate

Content %	Index (EU)	
	Symbols	Risk standards R*
Less 8	Xn	R10-20-36/37

SECTION 4: First aid measures

4.1. First aid measures description

General provisions	: In case of accident or ailment visit a doctor. (If possible, show him the label (symbol) or safety certificate).
Eye contact	: Wash off immediately with plenty of water. If irritation persists, consult a doctor.
Skin contact	: Wash off with plenty of water or soap. With visible skin changes or complaints, consult a doctor (if possible, show the label or safety certificate of the product).
After inhalation	: Seek for fresh air
If swallowed	: Give plenty of water to drink in small portions. Do not induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Relevant data are provided in other items of this section.

4.3. Guidelines for emergency medical aid or special remedial measures

Consideration should be given to the additional toxicological information provided in Section 11.

SECTION 5: Fire-fighting measures

5.1. Fire-extinguishing means

General provisions	: Water spray, extinguishing powder, Alcohol resistant foam, carbon dioxide, sand.
General provisions	: Water jet.

5.2. Special hazards arising from the substance or mixture

In case of fire, hazardous flammable gases or vapors may form. Exposure of combustion products can be hazardous to health!

Hazardous combustion products in case of fire: carbon oxides, silicon oxides, incompletely burned hydrocarbons, toxic and very toxic flue gases.

5.3. Fire-fighting guidelines

Special means of anti-chemical protection	: Use respiratory protection that does not depend on the composition of the ambient air. Keep people without protective clothing on distance when extinguishing a fire.
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SECTION 6: Unintended release measures

6.1. Personnel precautions, protective equipment and emergency behavior

6.1. For personnel other than emergency response personnel

To secure/ fence off the area. Wear personal anti-chemical protective equipment (comp. Sec. 8). Keep people without protective clothing at a distance. Avoid contact with eyes and skin. Do not inhale gases, vapors, aerosols. In case of release of material, be aware of the risk of slipping/frictional sliding. Do not walk on spilled material.

6.2. Environment-oriented measures

Do not allow substance to enter into waterways, sewage and soil. Close the leak if it can be done safely. Dispose of escaped liquid with suitable materials (e.g. earth). Containment of contaminated water/water after fire. Dispose of waste in appropriately marked containers. In case of contact with waterways, sewers or soil, inform the appropriate competent authorities.

6.3. Methods and materials for prevention of proliferation and cleaning up

Mechanically dispose of/collect in accordance with current regulations. Do not rinse with water. For small quantities: use neutral (non-alkaline / non-acidic) water-binding materials such as diatomaceous earth, collect and dispose of in a proper way. For large quantities: liquids can be collected by vacuum devices or pumps. In the case of flammable liquids, use only pneumatic devices or correctly adjusted electrical devices. Remove any remaining slippery deposits with detergent/soap solution or other biodegradable cleaner. Silicone oils are slippery and therefore are posing danger if spilled. To improve roughness, use sand or other inert granular material.

Additional guidelines

Suck off the vapors. Eliminate sources of ignition. Pay attention to ensuring explosion safety. Pay attention to the data in item 7.

6.4. References to other sections

Corresponding data are presented in other sections. This primarily applies to information on personal protective equipment (Section 8) and disposal (Section 13).

SECTION 7: Use and storage

7.1. Protective measures for safe use

Guidelines for safe handling (with the product)	: Ensure good ventilation of rooms and workplaces. Suction/exhaust ventilation is required on site. Spilled material causes an increased risk of slipping. Avoid aerosol formation. When aerosol is formed, special protective measures are required (exhaust ventilation/suction, respiratory organs protection). Review the information in Section 8. Keep away from incompatible materials in accordance with Item 10.
Fire and explosions safety guidelines	: The product may release a small amount of ethanol. In closed rooms, vapors can form mixtures with air, which, in the presence of sources of ignition, lead to an explosion, also in empty but crude containers. Keep away from sources of ignition and do not smoke! Conduct measures to protect against static electrification. Cool containers at risk with water.

7.2. Safe storage conditions considering compatibility rules

Requirements for warehouses and containers	: Adhere to the requirements of local authorities.
Guidelines for joint storage	: Adhere to the requirements of local authorities.
Requirements for warehouses and containers	: Store in a cool and dry place. Protect from moisture. Store containers in a well-ventilated place.

7.3. Specific end use

No data available

SECTION 8: Exposure limits and its monitoring/ personal protective equipment

8.1. Parameters subject to monitoring

Name of the product, ingredient	Identifiers	Threshold Limit Value, mg/m ³	Standard
Tetraethyl silicate	CAS: 78-10-4	20,0	Order No. 1596 of the Ministry of Healthcare of Ukraine dated 14.07.2020 «On approval of hygienic regulations for the permissible content of chemical and biological substances in the air of the working area»

8.2. Exposure limits and its monitoring

8.2.1. Limitation and monitoring of exposure at the workplace

General protective and hygienic measures

: Avoid contact with eyes and skin. Do not inhale gases, vapors, aerosols. Do not eat, drink or smoke when working.

Respiratory organs protection

: With prolonged or strong exposure: Gas mask, ABEK filter (protection against organic and inorganic gases and vapors, acid gases and ammonia).

Protection of eyes



: Close-fitting protective goggles.

Protection of hands



: Protective gloves made of butyl rubber. Gloves are suitable for use for up to 60 minutes. The choice of suitable gloves is determined not only by the material, but also by other quality features that vary significantly from manufacturer to manufacturer. When choosing gloves, consider the permeability and burst time data provided by the manufacturer.

Protection of skin

: Protective clothing.

8.2.2. Limitation and monitoring of contact with the environment

Do not allow substance to enter into waterways, sewage and soil.

8.2.3. Limitation and monitoring of contact with the environment

Do not allow substance to enter into waterways, sewage and soil.

8.3. Additional guidelines for the registration of technical equipment

Pay attention to the information in Section 7.

SECTION 9: Physiochemical properties

9.1. Main physiochemical properties

Property:	Value:	Method
Aggregative state/Form	:Liquid	
Color	:Colorless	
Odor	:Ether-like	
pH value	:Drops out	
Melting point	:Around -65 °C	
Solidification point (limit)	:Around -65 °C	
Boiling point/boiling range	:Around 192 °C at 1013 hPa	
Flash point	:64 °C	(DIN 51755)
Sustained combustibility	:91 °C	(ISO Standard 9038)
Lower explosion limit	:Not determined	
Upper explosion limit	:Not determined	
Vapor pressure	:< 2 hPa	
Solubility/miscibility in water	:Not applicable	
Gas/vapor relative density	:No data available	
Relative density	:1,07 – 1,1 (20 °C) (Water/4 °C = 1,00)	(DIN 51757)
Density	:1,08 – 1,09 g/cm ³ (20 °C)	(DIN 51757)
Partition coefficient of n-octanol/water	:No data available	
Ignition temperature	:235 °C	(DIN 51794)
Thermal decomposition	:> 250 °C	
Viscosity (dynamic)	:Around 5,4 mPa.s	(DIN 53015)
Lower ignition limit	:> 3 mJ	

SECTION 10: Resistance and reactivity

10.1 – 10.3 Reactivity; Chemical resistance; Possibility of hazardous reactions

No hazardous reactions are known with proper storage and handling. Stable up to 210 °C. Behavior at higher temperatures is unknown.

Relevant data may also be provided in other items of this section.

10.4 Conditions to avoid

Moisture

SECTION 11: Toxicological data

11.1. Data on toxicological effect

11.1.1. Acute toxicity estimate

The available data do not give grounds to assume the emergence of an acute toxic effect due to short-term exposure in the form of inhalation.

Product characteristics:			
Exposure method	Result/Action	Species/test system	Data source
Inhalation (Aerosol)	LC50: > 5,03 mg/l; 4 h	Rat	Inspection report

Acute toxicity estimate (ATE): ATEmix (oral): > 2000 mg/kg

11.1.2. Caustic/irritant to the skin estimate:

Pursuant to the last item, there is no toxicological test data for the product itself.

11.1.3. Serious eye damage/irritation estimate:

The available data do not give grounds to assume the emergence of a clinical picture of eye irritation.

Product characteristics:		
Result/Action	Species/test system	Data source
Non-irritating	Rabbit	Inspection report

11.1.4. Respiratory tract/skin sensitization estimate:

Pursuant to the last item, there is no toxicological test data for the product itself.

11.1.5. Germinal cell mutagenicity estimate:

Based on the available data, one cannot proceed from a significant negative hereditary potential.

Product characteristics:		
Result/Action	Species/test system	Data source
Negative	chromosome aberration assay (in vitro) mammalian cells	Inspection report OECD 473
Negative	mutation assay (in vitro) bacterial cells	Inspection report

11.1.6. Carcinogenicity estimate:

Pursuant to the last item, there is no toxicological test data for the product itself.

11.1.7. Reproducibility/embryos toxicity estimate:

Pursuant to the last item, there is no toxicological test data for the product itself.

11.1.8. Certain organ specific toxicity (single action) estimate:

Pursuant to the last item, there is no toxicological test data for the product itself.

11.1.9. Certain organ specific toxicity (repeated action) estimate:

Pursuant to the last item, there is no toxicological test data for the product itself.

11.1.10. Aspiration hazard estimate:

Pursuant to the last item, there is no toxicological test data for the product itself.

11.1.11. Additional toxicological guidelines

Product impurity: Ethanol (64-17-5) shows good and fast re-absorption at all types of exposure. Ethanol can cause irritation of the eyes and mucous membranes, as well as dysfunction of the central nervous system, vomiting sickness and dizziness. Chronic exposure in respect of large amounts of ethanol can damage the liver and central nervous system.

SECTION 12: Information on the protection of the environment

12.1. Toxicity

Estimate : No data available

12.2. Resistance and splicability

Estimate : Reacts with water to form ethanol and silicic acid. The hydrolysis product (ethanol) is easily biodegradable.

12.3. Bioaccumulation potential

Estimate : Bioaccumulation is virtually impossible.

12.4. Soil mobility

Estimate : No data available

12.5. Other harmful effects

Unknown

SECTION 13: Disposal guidelines

13.1. Waste treatment methods

13.1.1. Products

Recommendation : Any material that cannot be reused, processed or recycled must be disposed of at an approved facility in full compliance with national, state and local legislation. Disposal methods may include storage or incineration, depending on current legal standards.

13.1.2. Crude packages

Recommendation : Containers must be emptied without residue (dry, without drops, cereals, putty). Containers (in compliance with current local/domestic regulations) should preferably be provided for reuse or disposal. Containers that cannot be cleaned must be disposed of in the same way as the waste of the substance itself.

SECTION 14: Information about transportation

14.1 – 14.4 UN Identification number; Proper labeling of cargo in accordance with UN requirements; Cargo hazard categories; Packaging group

Carriage by road: ADR

Estimate : Harmless cargo

Carriage by railroad : RID

Estimate : Harmless cargo

Water haul: IMDG:

Estimate : Harmless cargo

Carriage by air: ICAO-TI/IATA-DGR:

Estimate : Harmless cargo

14.5. Environmental threat

Environmentally hostile : No

14.6. Special precaution measures for consumer

Corresponding data are set out in other sections.

14.7. Transportation of bulk cargo in accordance with Annex II of the International Convention for the Prevention of Pollution from Ships (MARPOL) and the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)

Bulk transportation of cargo is not applicable.

SECTION 15: Statutory regulations

15.1. Occupational health and safety, environmental regulations/standards specific for the substance or mixture.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 (REACH)

15.2. Chemical Safety Assessment for this product according to REACH Regulation No. 1907/2006

Was not carried out.

SECTION 16: Other information

16.1. Products

The data set out in this document is based on the information we have at the time of its revision. They do not represent a guarantee of the properties of the product presented in the sense of the warranty law.

Providing this document at the disposal of the customer of the product does not relieve the customer of their responsibility to comply with applicable laws and regulations regarding this product. First of all, this applies to the subsequent sale of the product or mixtures or goods made from it, regulated by other areas of law, as well as to legal standards protecting the results of the intellectual labor of third parties. With further recycling of the presented product or using it in mixtures with other materials, the data set out in this document cannot be used for a new product, except for specially stipulated cases.