



SAFETY DATA SHEET

NANOCLOAK™

Plastic Polydegreaser

Pursuant to European Parliament and Council Regulation (EC), No 1907/2006 (REACH) and Commission Regulation (EU) No 453/2010

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1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE

Product identifiers: Poly-degreaser PLAST (Plastic poly-degreaser)
Number Poly-degreaser PLAST (Plastic poly-degreaser)
Other names of the substance/mixture Poly-degreaser PLAST (Plastic poly-degreaser)

1.1. Relevant identified uses of the substance or mixture:

Nano-coating degreaser

2. INFORMATION REGARDING THE DANGERS OF THE SUBSTANCE OR PRODUCT

2.1. Classification of the substance or mixture

Hazard statement:

Not classified

R-phrases

R 10, R 67

2.2. Adverse physicochemical, human health and environmental effects, symptoms associated with inappropriate use and possible misuses

The mixture is flammable. Inhaling of the fumes may cause fatigue and nausea. Long-term adverse effects to environment are not expected.

2.3. Other hazards

Not known.

3. COMPOSITION/ INFORMATION ABOUT THE SUBSTANCES

3.1. Chemical Characteristic

Mixture of the bellow substances and additives is not dangerous.

3.2. The mixture contains the following dangerous substance and substance with given maximum permitted workplace air concentration:

| Identification Numbers | Chemical name of the substance | Concentration (%) | Warning sign and R phrases |
|---|--------------------------------|-------------------|----------------------------|
| CAS: 100-41-4 ES (Einecs): 202-849-4 Index.CM: 601-023-00-4 | Ethylbenzen | 1-17 | F, Xn R-11, 20 |
| CAS: 108-67-8 ES (Einecs): 203-604-4 Index.CM: 601-025-00-5 | 1,3,5-Trimethylbenzen | 1-2,3 | Xi,N R-10, 37, 51/53 |
| CAS: 67-63-0 ES (Einecs): 200-661-7 Index.CM: 603-117-00-0 | Propan-2-ol | 1-18 | F, Xi R-11, 36,67 |
| CAS: 107-98-2 ES (Einecs): 203-539-1 Index.CM: 603-064-00-3 | Hydrokarbon | <70 | R-10 |
| CAS: 64742-95-6 ES (Einecs): 256-199-0 Index.CM: 649-356-00-4 | Hydrokarbon | 1-9,5 | Xn R-65 |
| CAS: 64742-48-9 ES (Einecs): 265-150-3 Index.CM: 491-327-00-6 | Hydrokarbon | 1-9,5 | Xn R-65 |

Notes

Full text of all standard phrases and directions are specified in Section 16.

4. FIRST AID MEASURES**4.1. Description of First Aid Measures:**

In case there are medical problems or in case of doubt, call the doctor and provide him with the information contained in this Safety Data Sheet. If unconscious, place the person in the recovery position with the head slightly tilted back, establish free airway, never induce vomiting. If vomiting, make sure, to avoid aspiration.

If inhaled

Remove the victim to fresh air and keep at rest in a position comfortable for breathing. Keep warm. If irritation persists, seek medical advice.

In case of skin contact

Take off all contaminated clothing immediately. Wash exposed skin with large amount of warm water and soap. Seek medical advice.

In case of eye contact

Remove contact lenses. Rinse with large amount of lukewarm water, also under the eye lids for 10-15 minutes and seek medical advice.

If swallowed

Place the victim at rest. Rinse the mouth with water (only if victim is conscious), never induce vomiting. Seek medical advice immediately and show this container or label.

5. FIREFIGHTING MEASURES**5.1. Suitable extinguishing media**

Alcohol resistant foam, foam- medium jet, Carbon dioxide (CO₂), dry powder

5.2. Extinguishing media which must not be used

Not known

5.3. Special hazards arising from the substance or mixture

Fire will produce dense, black smoke, which can cause formation of carbon monoxide, carbon dioxide and other toxic fumes. Inhaling of hazardous degradation products can cause serious health problems.

5.4. Special protective equipment for firefighters

Protective breathing equipment and protective suit.

5.5. Additional information

Keep the closed containers with the mixture and surroundings cool with water spray. Do not discharge contaminated fire extinguishing water into drains, surface and ground water

6. ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures**

Remove all sources of ignition, secure adequate ventilation. Use personal protective equipment. Proceed in accordance with instructions in Sections 7 and 8.

6.2. Environmental precautions

Prevent from soil contamination and entering into surface and ground water. Do not let entering into drains.

6.3. Cleaning methods

Soak up with inert absorbent (inflammable) material (sand, diatomaceous earth, soil or other appropriate absorbents), collect in tightly closed containers and dispose as per paragraph 13. Dispose of in accordance with local regulations. In case of large volume of mixture release, inform firefighters and environmental office of the municipal authority.

6.4. Additional information

After mixture removal, wash the contaminated place with large amount of water or other cleaning detergent. Do not use solvents.

7. HANDLING AND STORAGE**7.1. Precautions for safe handling**

Prevent from fumes and vapors release in flammable or explosive concentrations exceeding the maximum permitted workplace air concentration. Do not use mixture in areas with open fire or other ignition source. Do not smoke. Protect from direct sunlight. Take precautionary measures against static discharges, Use only grounded pipes (hosepipes) when transferring. It is recommended to use antistatic clothing and footwear. Use non-sparking tools. Do not

inhale fumes and vapors. Avoid contact with skin and eyes. Use personal protecting equipment in accordance with Section 8. Observe regulations on health and safety.

Preventive measures for the environmental protection

Avoid mixture release to the environment. Keep in containers that match the original packaging. Follow the instruction on the label of the mixture.

Specific requirements or rules related to the substance/mixture

Vapors are heavier than air and may spread along floors and form explosive mixture when mixed with air.

7.2.Storage**Conditions for safe storage of substance and mixtures, including any incompatibilities**

Store in a tightly closed containers in a cool dry, and well ventilated place

Content 30,2 l
Type of packaging canister, barrel
Material of packaging FE (40), steel (metals)



Storing temperature <15°C

7.3.Specific final use

Unknown.

8. EXPOSURE CONTROLS/PERSONAL PROTECTIVE EQUIPMENT**8.1.Control parameters**

| Substance | CAS Number | Permissible air concentration in (mg/m3) | |
|-----------------------|------------|--|-------|
| | | PEL | NPK-P |
| Ethylbenzen | 100-41-4 | 200 | 500 |
| 1,3,5-Tirmethylbenzen | 108-67-8 | 100 | 250 |
| Propan-2-ol | 67-63-0 | 500 | 1000 |
| Hydrokarbon | 107-98-2 | 270 | 550 |
| Hydrokarbon | 64742-95-9 | 200 | 1000 |
| Hydrokarbon | 64742-48-9 | 400 | 1000 |

8.2. Exposure controls

8.2.1. Exposure controls of the workers

Observe the usual precautions to protect the health and provide good ventilation. This can be achieved by local extraction system or effective ventilation. If it is not possible, appropriate protection of respiratory system should be secured. Do not eat, drink or smoke when working. Wash your hands thoroughly with soap water after work and before meal or rest breaks.

Respiratory system protection

Mask with filter against organic vapors or insulating breathing equipment when OEL of toxic substances is exceeded or in poor ventilated environment.

Hands protection

Safety gloves (depending on nature of work). For longer or repeated contact of the mixture with skin, use suitable protective skin cream. Observe other manufacturer's recommendations.

Eyes protection

Safety goggles or face shield (depending on nature of work)

Skin protection

Protective antistatic clothing made of natural fibers (cotton) or synthetic fibers, resistant to elevated temperatures. Wash the polluted skin thoroughly.

8.2.2. Reduction of exposition

Observe the usual precautions to protect the Environment, see paragraph 6.2.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. General Information

| | |
|------------------|----------------|
| State of matter: | liquid at 20°C |
| Color: | transparent |
| Smell: | characteristic |

9.2. Important health, safety and environment information

| | |
|---------------------------------------|---------------------------------------|
| Boiling point | 120°C |
| Ignition point | 28-33°C |
| Flash-point | 1,47-13,74 % volume |
| Viscosity | 1,7 |
| Relative density | 0,867-0,892 g/cm ³ at 20°C |
| Solubility in water | partial |
| Evaporation rate | 6-7 min |
| Diverting coefficient n-octanol/water | 0,49 |

9.3. Additional information

| | |
|---------------------------------------|------------------|
| Vapor pressure | 8,7 mbar at 20°C |
| Fat solubility | no |
| Auto flammability | >250°C |
| The content of organic solvent (VOC) | 0,95 kg/kg |
| Total content of organic Carbon (TOC) | 0,90 kg/kg |
| Solid content | 0% volume |

Surface tension: 27 mN/m

10. STABILITY AND REACTIVITY

10.1. Conditions to avoid

The mixture is stable under conditions of normal use, no decomposition if used as directed.

10.2. Materials to avoid

Keep away from strong acids, alkalis and oxidizing agents. This prevents the formation of a hazardous exothermic reaction.

10.3. Hazardous decomposition products

No decomposition if used as directed. Hazardous products such as Carbon monoxide and Carbon dioxide, fumes and nitrogen oxides arise at elevated temperatures and fire.

11. TOXICOLOGICAL INFORMATION

Acute toxicity of the mixture components

No toxicological information are available for the mixture. Due to the properties of individual components the mixture is practically non-toxic.

Acute toxicity of the mixture components

Ethylbenzen (CAS: 100-41-4, ES: 202-849-4)

| | | |
|--|-------|----------------|
| LD50, orally rat or rabbit | 3500 | mg.kg-1 |
| LD50, dermally rat or rabbit | 17600 | mg.kg-1 |
| LC50, by inhaling, rat, for fumes and vapors | 17400 | mg.1-1/4 hours |

1,3,5-Trimethylbenzen (CAS: 108-67-8, ES: 203-604-4)

| | | |
|--|-------|-----------------|
| LD50, orally rat or rabbit | 8970 | mg.kg-1 |
| LC50, by inhaling, rat, for fumes and vapors | 24000 | mg.kg-1/4 hours |

Propan-2-ol (CAS:67-63-0, ES: 200-661-7)

| | | |
|-----------------------------|------|---------|
| LD50, orally, rat or rabbit | 5840 | mg.kg-1 |
|-----------------------------|------|---------|

Hydrocarbon (CAS: 107-98-2, ES:203-539-1)

| | | |
|-------------------------------|-------|---------|
| LD50, orally, rat or rabbit | 6600 | mg.kg-1 |
| LD50, dermally, rat or rabbit | 13000 | mg.kg-1 |

Hydrocarbon (CAS: 64742-95-6, ES: 265-199-0)

| | | |
|--|------|-----------------|
| LD50, orally, rat or rabbit | 2000 | mg.kg-1 |
| LD50, dermally, rat or rabbit | 2000 | mg.kg-1 |
| LC50, by inhaling, rat, for fumes and vapors | 5 | mg.kg-1/4 hours |

11.1. Adverse effects on health caused by exposure to the substance or mixture

Inhalation of solvent vapors above values exceeding the OEL may result in acute inhalation poisoning depending on the level of concentration and exposure time. It can cause irritation to mucous membranes and respiratory system as well as affecting the central nervous system. The following symptoms appear: headache, nausea, fatigue, malaise, weakness, narcotic effect, in some exceptional cases unconsciousness. Prolonged or repeated contact with the product leads to degreasing and drying of the skin. The product can be absorbed through intact skin. Eye contact may cause irritation and reversible damage. When using as directed and following the principles of personal hygiene, no adverse effects were observed on human.

11.2. Known delayed and immediate effects as well as chronic effects caused by short and long-term exposure

Chronic toxicity: Not known, mixture components do not cause chronic poisoning.

Sensitization: Not known, low expectancy.

Carcinogenicity: Not known, mixture components do not have carcinogenic effect.

Mutagenicity: Not known.

Toxicity on reproduction: Not specified, mixture components are non-toxic on reproduction.

12. ECOLOGICAL INFORMATION

12.1. Ecotoxicity

Acute toxicity of the mixture to aquatic organisms

Acute toxicity of the mixture components to aquatic organisms

Unknown.

12.2. Mobility

Unknown.

12.3. Persistence and decomposability

The mixture is biodegradable.

12.4. Bio-accumulative potential

Unknown.

12.5. PBT results

Unknown.

12.6. Other adverse effects

Unknown.

13.DISPOSAL CONSIDERATIONS

Risk of contamination of the environment, follow the Act No. 185/2001 Coll. on waste, as amended, and implementing regulations on waste disposal.

13.1. Waste treatment methods

Act. No. 185/2001 Coll. On waste, as amended, Act No. 477/2001 Coll., on packaging and on amendments to certain Acts (the packaging), as amended, Decree 376/2001 Coll., on classification of hazardous properties of waste, as amended, Decree 381/2001 Coll. (waste catalog), as amended, 383/2001 Coll., on details of waste, as amended.

13.2. Legal regulations on waste

Legal regulations of the Waste Act no. 185/2001 Coll., The Waste Act no. 188/2004 Coll., which complements the Law no. 185/2001 Coll.

| | |
|---------------------------|---|
| Waste code | 140603 |
| Name of the type of waste | Other solvents and solvent mixture |
| Category | N |
| Subgroup of waste | Waste organic solvents, refrigerants and foam and aerosols propellers. |
| Group of waste | Waste organic solvents, refrigerants and propellers (except waste listed in groups 07 and 08) |

14.TRANSPORT INFORMATION

14.1. Special precautions for users

Unknown

14.2. Road transport- ADR

| | |
|--|--|
| UN number | 1268 |
| Classification Code | F1 |
| Hazard Class | 3 (Flammable liquids) |
| Hazard Identification number (Kemler's code) | 33 (easily flammable liquid (ignition point 23°C)) |
| Naming of transported substances | Petroleum spirits, NOS or Petroleum products NOS |
| Safety signs | 3 |
| Packaging | II. |

Railway transport RID

| | |
|--|--|
| UN number | 1268 |
| Classification Code | F1 |
| Hazard Class | 3 (Flammable liquids) |
| Hazard Identification number (Kemler's code) | 33 (easily flammable liquid (ignition point 23°C)) |
| Naming of transported substances | Petroleum spirits, NOS or Petroleum products NOS |
| Safety signs | 3 |
| Packaging | II. |

Air transport- ICAO/ IATA

| | |
|---------------------|-----------------------|
| UN number | 1268 |
| Classification Code | F1 |
| Hazard Class | 3 (Flammable liquids) |

| | |
|--|--|
| Hazard Identification number (Kemler's code) | 33 (easily flammable liquid (ignition point 23°C)) |
| Naming of transported substances | Petroleum spirits, NOS or Petroleum products NOS |
| Safety signs | 3 |
| Packaging | II. |
| Transport by sea- IMDG | |
| UN number | 1268 |
| Classification Code | F1 |
| Hazard Class | 3 (Flammable liquids) |
| Hazard Identification number (Kemler's code) | 33 (easily flammable liquid (ignition point 23°C)) |
| Naming of transported substances | Petroleum spirits, NOS or Petroleum products NOS |
| Safety signs | 3 |
| Packaging | I. |
| Sea pollution | No |

15. REGULATORY INFORMATION

15.1. Information that must by law be included on the label

The mixture is in accordance with Act No. 356/2003 Coll., as amended on chemical substances and chemical products and on amendments of some acts and regulations implemented, classified and marked on the label as follows:

Warning signs

None

Hazardous substances

Ethylbenzen (CAS: 100-41-4; ES 202-89-4)

1,3,5- Trimethylbenzen (CAS; 108-67-8; ES 203-604-4)

Propan-2-ol (CAS;67-63-0, ES:200-661-7)

Hydrokarbon (CAS; 107-98-2;ES;203-539-1)

Hydrokarbon (CAS;64742-95-6, ES; 265-199-0)

Hydrokarbon (CAS; 64742-48-9; ES;265-150-3)

R-phrases (full text)

R 10 flammable

R 67 Inhaling of the fumes may cause fatigue and nausea

S-phrases (full text)

S ½ Keep locked and out of reach of children

S 13 Keep separate from food, drinks and animal feed

S 23 Do not inhale fumes

S 36 In case of insufficient ventilation use appropriate equipment for respiratory protection

S 45 In case of accident or if you feel unwell, seek medical advice immediately (if possible show this designation)

S 46 If swallowed, seek medical advice immediately and show this designation

S 53 Avoid exposure- before use obtain special instructions

Designation of a specific danger (according to Decree no. 232/2004 as amended)

NA

Designation for aerosol packaging

NA

15.2. Specific provisions regarding the protection of persons or the environment at Regulation of European Communities

European Parliament and Council Regulation (EC) no. 1907/2006 (REACH) as amended, Directives 67/548/EEC as amended by 1999/45 ES as amended.

15.3. Legislation containing specific provisions concerning the protection of persons or the environment

Health care regulations

Government Regulation No. 361/2007 Coll. Laying down conditions for the protection of health at work. Act No. 20/1966 Coll., on Health Care, as amended. Act No. 258/2000 Coll., The protection of public health, as amended

Regulations to protect air

Decree No. 355/2002 Coll. as amended, on the emission limits.

Fire regulations

Act No. 133/1985 Coll., as amended. CSN 65-0201- Flammable liquids, plants and warehouses. Decree No. 246/2001 Coll., on fire prevention.

16.ADDITIONAL INFORMATION

List of R-phrases used in paragraph 2 and 3

| | |
|---------|---|
| R 10 | Flammable |
| R 67 | Vapors may cause fatigue and nausea |
| R 11 | Highly flammable |
| R 20 | Harmful by inhalation |
| R 37 | Irritating to respiratory system |
| R 51/53 | Toxic to aquatic organisms , may cause long-term adverse effects in the aquatic environment |
| R 36 | Irritating to eyes |
| R 65 | Harmful: if swallowed can cause lung damage |

Further information relevant to the safety and health of human beings

The product should not be- without special permission of the manufacturer/importer-used for any purpose other than specified in chapter 1. User is responsible for compliance with all relevant legislation for the protection of health.

Guidelines for training

Inform workers with the recommended use, mandatory protective equipment, first aid and allowed manipulations with the mixture.

Recommended restrictions on use

Not known.

Information on data sources used to compile the safety guidelines

European Parliament and Council Regulation (EC) No. 1907/2006 (REACH) Directive 67/548/EEC as amended and 1999/45/EC, the list of compulsory classified substances in accordance with Decree No 232/2004Coll. as amended, the data from the company or enterprise database of hazardous substances.

Statement

Safety Instructions contain information to ensure the health and safety at work and environmental protection. The data correspond to the current state of knowledge and experience and are in compliance with applicable laws and regulations. They can not be considered a guarantee of the suitability of the product for a specific application.