

## **MATERIAL SAFETY DATA SHEET**

On the basis of REACH Order (EC) No. 1907/2006 of the European Parliament and Council dated 18<sup>th</sup> December 2006 concerning the registration, evaluation and authorisation of chemicals (REACH), the establishing of the European Chemicals Agency, amending the directive 1999/45/EC and revoking the order of the Council (EEC) No. 793/93 and the order of the Commission (EC) No. 1488/94, as well as the Council's directive 76/69/EEC and Commission's directive 91/155/EEC, 93/105/EC and 2000/21/EC (the Journal of Laws of the European Union series L, No. 396 as of 30<sup>th</sup> December 2006)

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### **ENGINE – PREPARATION FOR ENGINE CLEANING**

#### **1. Identification of preparation. Identification of company.**

1.1. **Product trade name: ENGINE – PREPARATION FOR ENGINE CLEANING**

**Product code:** 19-048, 19-052, 19-055

1.2. **Product application:** engine cleaning liquid

1.3. **Producer:**

Name and address of the company: **NANOCHEM Sp. z o.o.**  
**ul. Schonów 3**  
**41-200 Sosnowiec**

Telephone number: **(032) 317 34 30**

Fax number: **(032) 317 34 32**

1.4. **Emergency telephone: + 48 42 65 79 900, 42 63 14 767**

1.5. Person responsible for preparing material safety data sheets: Anna Nowak  
Email: [anna@nanochem.com.pl](mailto:anna@nanochem.com.pl)

#### **2. Threat identification.**

According to legal regulations the mixture has been classified as dangerous.

**Fire hazard:** none

**Toxicological hazard:** Irritating. Has an irritating effect on eyes and skin.

**Eco-toxicological hazard:** may pose a threat to the environment due to pH change.

#### **3. Composition and information on components**

**Chemical character:** A mixture of detergents, amine compounds and caustic soda.

	%	CAS	EC	Hazard classification
Sodium hydroxide	2%	1310-73-2,	215-185-5	C, R35
Anion and non-ion surface active substances	5%	68585-34-2	polymers	Xi R38, 41
Anion and non-ion surface active substances	4%	25155-30-0	246-680-4	Xi; R; 22, 36/38
Butylcarbitol	13%	112-34-5	203-961-6	Xi; R36

Pursuant to the order (EC) No. 648/2004 on detergents issued by the EUROPEAN PARLIAMENT AND COUNCIL on 31<sup>st</sup> March 2004 we present the marking of detergents' contents:

- 9% - surface active substances

#### **4. Threat identification**

**Fire hazard:** none

**Toxicological hazard:** caustic product, causes severe burns.

**Eco-toxicological hazard:** the product is not classified as dangerous to the environment.

## 5. First aid

### **Swallowing:**

An injured person should be given chicken egg white; do not give anything else to drink, do not induce vomiting, do not use neutralizing agents, seek medical advice.

### **Inhalation poisoning:**

Move an injured person from the affected area, ensure quiet and protection against heat loss, in the event of breathlessness provide oxygen and medical assistance.

### **Skin contamination:**

Take off contaminated clothing, flush the contaminated skin with a large amount of water, in the case of burns do not use soap, do not use neutralizing agents, apply a sterile dressing on the burn, seek medical advice.

### **Eye contamination:**

Immediately flush the eyes with a large amount of water for minimum 15 minutes, seek medical advice urgently.

**CAUTION:** persons exposed to eye contamination should be informed of the necessity and manner of immediate eye flushing.

## 6. Fire-fighting procedures

**Fire hazard:** non-flammable product.

**Extinguishing media:** fires in the presence of the product should be quenched with agents suitable for the materials on fire.

**Other information:** containers exposed to high temperatures have to be cooled with water from a safe distance and if possible, removed from the endangered area.

**Individual protection equipment for fire-fighters:** respiratory tracks protection equipment, clothing and gloves.

## 7. Procedures in the case of accidental release to the environment

Prevent a potential release of the preparation into the environment.

### **Personal protection equipment:**

Protective gloves, protective goggles, face shield, protective clothing.

### **Procedures in case of spillage:**

Remove the sources of ignition, prevent contact with metals and water, avoid direct contact with the released substance, remove the leakage, cover with a non-flammable absorbing material (sand, ground), collect into an airtight container and dispose of in authorised facilities.

## 8. Handling and storage of the preparation

### **Handling the mixture:**

When using the preparation do not eat or drink, avoid contact with the substance and its solutions, avoid dust inhalation, observe personal hygiene rules, apply individual protection equipment, work in well ventilated rooms.

### **Storage:**

Store in closed containers resistant to corrosion (recommended HDPE) at 15°C - 30°C in well ventilated rooms. Keep the preparation away from acids, alcohols and strong oxidants. Do not store in closed rooms together with zinc, aluminium and their alloys, especially if they are powdered. Also, do not store the preparation together with ammonium salts and other substances which react with sodium hydroxide and form harmful vapours.

## 9. Exposure control and individual protection equipment

The applied personal protection equipment should meet the requirements of the order on basic requirements to be fulfilled by individual protection equipment issued by the Minister of Economy, Labour and Social Policy dated 21<sup>st</sup> December 2005 (the Journal of Laws No. 259, item 2173).

**Respiratory tracks protection:** ventilation

**Eyes and face protection:** protective goggles, face shield

**Skin protection:** protective gloves

**Technical protection means:** necessary local exhaust ventilation and general room ventilation. Provide facecloths for eye washing at a place of work with the product.

**Threat control:**

for sodium hydroxide: NDS = 0,5 mg/m<sup>3</sup>; NDSCH = 1 mg/m<sup>3</sup>;

for anion and non-ion surface active agents: unspecified

(according to the order on the highest admissible concentration and intensity of factors harmful to health in a work environment issued by the Minister of Labour and Social Policy on 29<sup>th</sup> November 2002 (the Journal of Laws No. 217, item 1833 with changes and the Journal of Laws No. 212 item 1769 as of 10.10.2005).

**Caution:**

If the substance concentrations are determined and known, the concentration of substances at a given workstation, exposure time and works performed by an employee should be taken into consideration when selecting individual protection equipment. In emergency, when the substance concentration at a workstation is not known, apply personal protection equipment included in the highest recommended protection class.

## 10. Physical and chemical properties

State of aggregation at 20°C <b>Liquid</b>		Colour <b>Straw-coloured</b>		Smell <b>Characteristic, irritating in high concentrations</b>
Boiling temp. [°C] <b>120°C</b>	Melting point [°C] <b>-1°C</b>	Flash point [°C] <b>Not applicable</b>		Self-ignition temp. [°C] <b>Not applicable</b>
Upper explosiveness limit [% V/V] <b>Not applicable</b>		Lower explosiveness limit [% V/V] <b>Not applicable</b>		Vapour pressure [hPa] at 180°C <b>Not applicable</b>
Density [kg/m <sup>3</sup> ] at 20°C <b>1056 kg/m<sup>3</sup></b>		pH <b>13 (+/- 0,5 pH)</b>		Viscosity [mPa s] at 20°C <b>No data available</b>
Refractive index <b>No data available</b>		Solubility in water <b>Very good</b>		Solubility in organic solvents <b>2-propanol</b>
Flammability <b>Non-flammable</b>		Oxidizing properties <b>Not found</b>		Explosive properties <b>Not applicable</b>
Octanol/water partition coefficient <b>Not applicable</b>		Other properties		

## 11. Stability and reactivity

**Conditions and materials to be avoided** – aluminium, zinc, diphosphorus pentaoxide, chlorosulfonic acid, hydrochloric acid, hydrofluoric acid, nitric acid, sulphuric acid, oleum, ammonium compounds, tetrahydrofuran.

**Dangerous materials** – acids, light metals

**Dangerous decomposition products** – carbon and sulphur compounds

## 12. Toxicological information

**Local effect:**

- **respiratory tracts** – irritating product, may cause sneezing, effusion from the nose, cough.

- **digestive tracks** – caustic, causes irritation of mouth, throat, stomach; symptoms – severe pain, vomiting, diarrhoea, symptoms of damage may appear even a few days after the exposure.
- **skin contact** – caustic, may cause severe burns (hardly healing), causes serious changes to the skin.
- **eye contact** – caustic, may cause burns, reddening, severe pain as well as damage to cornea and conjunctiva, leading to irreversible deterioration or even a complete loss of eyesight

**Toxicity for sodium hydroxide:**

Acute toxicity – oral: LD<sub>50</sub> – 500 mg/kg (rabbit)

**Toxicity for anion and non-ion surface active agents CAS 25155-30-0:**

Acute toxicity-oral: LD<sub>50</sub> – 500-1000 mg/kg (rat)

Acute toxicity-skin: LD<sub>50</sub> – no data available

Acute toxicity-inhalation: LC<sub>50</sub> – no data available

**Toxicity for anion and non-ion surface active agents CAS 68585-34-2:**

Acute toxicity-oral: LD<sub>50</sub> – 2000 mg/kg (rat)

Acute toxicity-skin: no data available

**13. Ecological information**

Biodegradability: ca 80% biodegradable product on the basis of components

Admissible contamination of inland surface waters: no data available

Toxic contamination for water animal and plant organisms: no data available

**Data for sodium hydroxide classification:**

Acute toxicity for fish LC<sub>50</sub> 45,5 mg/l/96h (Onchorhynchus mykiss)

Acute toxicity for fish LC<sub>50</sub> 99 mg/l/48h (Limnea macrochirus)

Acute toxicity for daphnia EU<sub>50</sub> 76 mg/l/24h (Daphnia magna)

Biological effect: has a toxic effect on fish and plankton. The harmful effect depends on the pH value. Potentially lethal for fish. Does not cause a biological oxygen deficit. A possibility of neutralizing in sewage treatment plants.

**Data for classification of anion and non-ion surface active agents CAS 25155-30-0:**

Acute toxicity for fish - LC<sub>50</sub> – 670 mg/l

Acute toxicity for crustacea - LC<sub>50</sub> – 6,6 mg/l

Acute toxicity for protozoa - LC<sub>50</sub> – 2350 mg/l

Prevent the preparation from penetrating into ground waters, water reservoirs and sewage system.

**14. Handling the waste**

Observe the regulations of the waste act dated 27<sup>th</sup> April 2001 (the Journal of Laws No. 62 item 628) with subsequent changes.

Observe the regulations of the packaging and waste packaging act dated 27<sup>th</sup> May 2001 (the Journal of Laws No. 63 item 638) with subsequent changes.

Destroy the waste in compliance with relevant waste disposal regulations.

**Waste code:**

Product - 06 02 04 - sodium and potassium hydroxide

Unit packaging - 20 01 39 - plastics

Collective packaging - 20 01 01 - paper and cardboard

Carefully dissolve the preparation in water by mixing. Neutralise the solution with ca 10% hydrochloric acid.

## 15. Information on transport

ADR/no data available

## 16. Information on legal regulations

The substances and chemical preparations act dated 11<sup>th</sup> January 2001 (the Journal of Laws No. 11, item 84 as of 14<sup>th</sup> February 2001) with subsequent changes.

Product classification according to the order on the criteria and manner of chemical preparations and substances' classification, issued by the Minister of Health on 2<sup>nd</sup> September 2003 (the Journal of Laws No. 171, item 1666 dated 2<sup>nd</sup> October 2003).

Any works with the product should be performed in compliance with the regulations of IV section of 6<sup>th</sup> chapter D of the general OSH regulations order issued by the Minister of Labour and Social Policy on 26<sup>th</sup> September 1997 (the Journal of Laws No. 129 item 824) with subsequent changes (the Journal of Laws No. 91 /2002 item 811).

The product's marking must comply with the order on the marking of packaging for dangerous substances and dangerous preparations, issued by the Minister of Health on 2<sup>nd</sup> September 2003 (the Journal of Laws 173 item 1679 with changes, the Journal of Laws 2004 No. 260, item 2595).

- R 36/38 - has an irritating effect on eyes and skin
- S 26 - immediately flush contaminated eyes with a large amount of water and seek medical advice
- S 28 - immediately flush the skin with a large amount of water
- S 37/39 - wear proper protective gloves or face protection
- S 2 - keep out of reach of children



irritating

## 17. Additional information

The information contained in the sheet results from the current state of knowledge and experiences in the use of the product. The data on this product has been presented in order to fulfil safety requirements, and not to guarantee its functional properties.

An employer is obliged to inform his employees who have contact with the product of the threats and personal protection means specified in this material safety data sheet.

This material safety data sheet has been prepared on the basis of material safety data sheets for the components provided by their producers, the conducted tests as well as the binding regulations applying to dangerous substances and chemical preparations.

### **R symbols:**

- R 22 has an irritating effect when swallowed
- R 35 causes severe burns
- R 36/38 has an irritating effect on eyes and skin
- R 38 has an irritating effect on skin
- R 41 serious eye damage risk
- R 36 has an irritating effect on eyes