

MATERIAL SAFETY DATA SHEET

Date of issue: 25th October 2016

Version: 1.0/PL

[Prepared according to Regulation (EC) 1907/2006 (REACH) and 2015/830]

1. Section: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

SILICONE OIL

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

Identified uses: Product has excellent lubricating properties that reduce friction and wear of tools and equipment.

Uses advised against: Not determined

1.3. Details of the supplier of the safety data sheet

Supplier: **NANOOIL D. DOMAGAŁA, J. ZALEGA SP.J**

Address: ul. Westerplatte 8, 32-500 Chrzanów, Poland

Phone: + 48 730 536 200

E-mail address of competent person responsible for the Safety Data Sheet: biuro@nanooil.pl

1.4. Emergency telephone number

112 (General Emergency Phone), 998 (Fire Department), 999 (Emergency Medical Service)

2. Section: Hazards identification

2.1. Classification of the substance or mixture

Aerosol 1 H222-229

2.2. Label elements

Hazard pictograms and signal word



Danger

Names of dangerous substances indicated on the label

Not specified.

Hazard statements

H222 Extremely flammable aerosol.

H229 Pressurised container: May explode if heated.

Precautionary Statements

P102 Keep out of reach of children.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

P260 Do not breathe spray.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

2.3. Other hazards

Mixture components do not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH.

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3. Section: Composition/information on ingredients

3.1. Substances

Not applicable.

3.2. Mixtures.

This product is based on polydimethylsiloxane. The substance is not classified as hazardous.

| Hazardous substance name and concentration range | | Identifier | Classification |
|--|-------|---|-------------------------------------|
| Propane | < 40% | CAS No. 74-98-6 EC No. 200-827-9 REACH registration number: 01-2119486944-21-XXXX | Flam. Gas 1 H220 Press Gas. H280 |
| Butane | < 40% | CAS No. 106-97-8 EC No. 203-448-7 REACH registration number: 01-2119474691-32-XXXX | Flam. Gas 1 H220 Press Gas. H280 |

Full text of H-phrases is given in Section 16

4. Section: First aid measures

4.1. Description of first aid measures

Skin contact: Immediately remove contaminated clothing. Wash contaminated skin with plenty of soapy water. Consult a doctor if disturbing symptoms appear.

Eye contact: Consult a doctor if irritation occurs. Keep non-irritated eye, remove contact lenses. Thoroughly wash contaminated eyes with water for 10-15 minutes. Avoid strong water jet - risk of damage to the cornea.

Swallowing: This route of exposure is not anticipated. If swallowed, rinse mouth with water. **Do not induce vomiting!** Never give anything by mouth to an unconscious person. Consult a doctor, show the label.

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

In contact with eyes: Redness, tearing, burning, blurred vision.

In contact with skin: Frequent and prolonged contact may cause defatting, flushing and inflammation.

Inhalation: High concentrations of aerosol can cause dizziness, weakness, fatigue, headache.

4.3. Indication of any immediate medical attention and special treatment needed

Decision on the rescue procedure is taken by a doctor following thorough examination of the injured person.

5. Section: Firefighting instructions

5.1. Extinguishing media

Suitable extinguishing media: CO₂, extinguishing powder, sand, spray water jet.

Unsuitable extinguishing media: Full water jet.

5.2. Special hazards arising from the substance or mixture

In case of fire, irritant and toxic vapours and gases may be released: carbon oxides, hydrogen fluoride, formaldehyde and other unidentified products of thermal decomposition. Avoid breathing combustion products, they may be hazardous for health.

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5.3. Advice for fire-fighters

General protection measures typical as in the case of fire. Do not stay in the fire zone without suitable chemical-resistant clothing and self-contained breathing apparatus. After fire extinguishing, prevent wastewater from enter drains, surface and ground water. Container under pressure – danger of explosion at high temperatures. Gas can accumulate near the ground surface and move on long distances causing danger of fire or explosion. Cool off endangered containers with spray water jet at a safe distance.

6. Section: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Limit the access of bystanders to the endangered area until relevant cleaning procedures are finished. Ensure that breakdown and its results are eliminated by a properly trained staff only. Isolate the endangered area in the case of great leakage. Use individual protection measures. Avoid skin and eye contamination. Provide adequate ventilation. Do not inhale vapours/aerosols. Impose ban on smoking and on use of open flames and sparking equipment.

6.2. Environmental precautions

If larger quantities were released, precautions should be taken to avoid spreading the product in natural environment. Inform the appropriate emergency services.

6.3. Methods and material for containment and cleaning up.

Contain spill with non-combustible absorbent materials (e.g. sand, earth, universal binding material, silica, etc.) and place in waste containers. Collected material dispose as waste. Clean contaminated area using detergents. Do not use solvents.

6.4. Reference to other sections

For disposal of product – see Section 13. Personal protective equipment – see Section 8.

7. Section: Handling and storage

7.1. Precautions for safe handling

Observe official regulations on safety and health protection. Avoid contact with the eyes and skin. Avoid breathing spray. Provide adequate general and/or local ventilation. Use individual protection measures. Eliminate sources of ignition - Do not use open flames, do not smoke, do not use sparking tools or clothing made from fabrics susceptible to static charge; Protect the tanks against heat, install explosion-proof electrical equipment. Do not spray on a naked flame or any incandescent material.

7.2. Conditions for safe storage, including any incompatibilities

Store only in dry and well-ventilated place below 50°C. Keep away from sources of fire and heat. Do not smoke and do not use open flames or sparking tools in the warehouse. Provide explosion-proof ventilation. Keep away from food, foodstuffs and animal feed. Protect from direct sunlight.

7.3. Specific end uses

No information on applications other than those listed in subsection 1.2.

8. Section: Exposure controls/personal protection

8.1. Control parameters

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| Specification | TLV | TLV-STEL | TLV-CL | BLV |
|---------------|------------------------|------------------------|--------|-----|
| Butane | 1900 mg/m ³ | 3000 mg/m ³ | — | — |
| Propane | 1800 mg/m ³ | — | — | — |

Legal basis: Journal of Laws of 2014, item 817, with subsequent amendments)

Recommended monitoring procedures

Use procedures for monitoring concentrations of hazardous components in air and procedures for monitoring workplace air pollution – if available and justified on a given workplace – in accordance with relevant Polish or European Standards, taking into account the exposure conditions and appropriate measurement methodology adapted to the work conditions. Mode, type and frequency of tests and measurements should meet the requirements of the Regulation of the Minister of Health of 2 February 2011 (Journal of Laws No. 33, item 166).

8.2. Exposure controls

Observe the general safety and hygiene rules. Avoid contact with the eyes and skin. Remove immediately contaminated clothing. In the workplace, general and/or local ventilation should be provided to maintain the concentration of the harmful agent in the air below established limit values. Do not eat, do not drink, do not smoke and do not take medicines while using the product. Wash hands before break and after finishing work.

Hand and body protection

Wear chemical resistant protective gloves and protective clothing. Material recommended for gloves: viton. In case of short-term exposure, wear protective gloves with performance level 2 or greater (breakthrough time > 30 min.) In case of long-term exposure, wear protective gloves with performance level 6 or greater (breakthrough time > 480 min.)

Material of gloves must be impermeable and resistant to the product. Glove material should be selected with consideration to the breakthrough times, permeability rate and degradation. In addition, the choice of suitable gloves does not only depend on the material but also on other qualitative characteristics and varies from manufacturer to manufacturer. Contact manufacturer of gloves for information on the accurate breakthrough time and observe it. It is recommended to change gloves regularly and replace them immediately if any signs of wear or damage or changes in appearance (colour, flexibility, shape) occur.

Eye protection

Tight safety goggles if a risk of eye contamination exists.

Respiratory protection

In the case of inadequate ventilation and exceeded TLV values, use suitable exhaust or absorbing and filtering equipment of appropriate protective class (class 1/protection against gases or vapours at volume concentration in air not exceeding 0.1%; class 2/protection against gases or vapours at volume concentration in air not exceeding 0.5%, class 3/protection against gases or vapours at volume concentration in air up to 1%). Insulation equipment should be used if oxygen concentration in air is ≤ 17% and/or max. concentration of toxic substances in air is ≥ 1.0% vol.

The applied personal protection measures have to meet the requirements included in the Regulation of the Minister of Economy of 28 December 2005 (Journal of Laws No. 259, item 2173) and Directive 89/686/EC (with subsequent amendments). The employer is obliged to ensure protection measures suitable for the operations being performed and meeting all the quality requirements, including maintenance and cleaning.

Environmental exposure controls

| Substances | Reference values in air, averaged over the period | | Acceptable masses of substances that can be discharged in treated industrial wastewater |
|------------------------|---|------------------------|---|
| | One hour | Calendar year | |
| Aliphatic hydrocarbons | 3000 µg/m ³ | 1000 µg/m ³ | 15 mg/ml |

Legal basis: Journal of Laws of 2010 No. 16, item 87; Journal of Laws of 2012 No. 0, item 1031; Journal of Laws of 2014, item 1800.

9. Section: Physical and chemical properties

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9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Physical state: | Aerosol |
| Colour: | Colourless |
| Odour: | Characteristic |
| Odour threshold: | Not determined |
| pH: | Not determined |
| Melting/Freezing point: - | 35°C to -50°C |
| Initial boiling point: | > 250°C |
| Ignition temperature: | < 0°C |
| Evaporation rate: | Not determined |
| Flammability (solid, gas): | Extremely flammable |
| Upper/Lower explosive limit: | 8.4%/1.8% vol. (propellant) |
| Vapour pressure (20°C): | Not determined |
| Vapour density (air = 1): | Not determined |
| Density (20°C): | 0.970 g/cm ³ |
| Solubility: | Insoluble in water, soluble in organic solvents |
| Partition coefficient: n-octanol/water: | Not determined |
| Auto-ignition temperature: | Not determined |
| Decomposition temperature: | Not determined |
| Explosive properties: | Forms explosive mixtures with air |
| Oxidising properties: | Does not show |
| Viscosity, dynamic: | Not determined |

9.2. Other information

No additional research was carried out.

10. Section: Stability and reactivity

10.1. Reactivity

The product is reactive and hazardous polymerization does not occur. Vapours may form explosive mixtures with air.

10.2. Chemical stability

This product is stable if it is properly used and stored.

10.3. Possibility of hazardous reactions

No dangerous reactions are known.

10.4. Conditions to avoid

Avoid heat sources and direct sunlight.

10.5. Incompatible materials

Avoid contact with strong oxidants.

10.6. Hazardous Decomposition Products

If the product is heated > 150°C, trace amounts of formaldehyde may be released.

11. Section: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Serious eye damage/irritation

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Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT — single exposure

Based on available data, the classification criteria are not met.

STOT — repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

12. Section: Ecological information

12.1. Toxicity

The product is not classified as hazardous to the environment.

12.2. Persistence and degradability

No data available for the mixture.

12.3. Bioaccumulative potential

No bioaccumulation is to be expected.

12.4. Mobility in soil

The product has low mobility in aquatic environment and soil. Gas components quickly spread in the air.

12.5. Results of PBT and vPvB assessment

Components of the mixture are not considered as PBT or vPvB substances.

12.6. Other adverse effects

This product does not affect global warming and ozone layer damage.

13. Section: Disposal considerations

13.1. Waste treatment methods

Product disposal: Do not remove the product from its packaging, do not enter drains. Disposal must be carried out in accordance with official regulations. Waste code should be determined at the place of generation of the waste.

Used packaging disposal: Recovering / recycle / disposal of packaging waste must be carried out in accordance with applicable regulations. Do not pierce or burn, even after use.

Community legal acts: European Parliament and Council Directives: 2008/98/EC i 94/62/EC.

Country-specific legal acts: Journal of Laws of 2013, item 21, with subsequent amendments; Journal of Laws of 2013, item 888, with subsequent amendments

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14. Section: Transport information

14.1. UN number:

UN1950 (LQ 1L)

14.2. UN proper shipping name

AEROSOLS, flammable.

14.3. Transport hazard classes

2 (label 2.1)

14.4. Packing Group

Not applicable.

14.5. Environmental hazards

The mixture poses no threat to the environment according to the criteria set out in the transport regulations.

14.6. Special precautions for users

Packages shall not be thrown or subjected to impact. Containers should be placed on the vehicle or in the shipping box so as to prevent them from falling down or dropping. Avoid heat sources.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable.



15. Section: Regulatory information

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

Act of 25 February 2011 on chemicals and their mixtures (Journal of Laws of 2011 No. 63, item 322, with subsequent amendments) Ordinance of the Minister of Work and Social Policy of 6 June 2014 on the maximum occupational levels and intensities of factors harmful to health in the working environment. (Journal of Laws of 2014, item 817);

European Agreement concerning the international carriage of dangerous goods by road (ADR);

Act of 14 December 2012 on wastes (Journal of Laws of 2013, item 21, with subsequent amendments);

Act of 13 June 2013 on packages and package wastes (Journal of Laws of 2013, item 888, with subsequent amendments);

Ordinance of the Minister of Environment of 9 December 2014 on the catalogue of waste (Journal of Laws of 2014, item 1923);

Ordinance of the Minister of the Economy of 21 December 2005 on basic requirements for personal protection measures (Journal of Laws No. 259, item 2173);

Ordinance of the Minister of Health of 2 February 2011 on tests and measurements of factors harmful to life in the working environment (Journal of Laws No. 33, item 166);

Ordinance of the Minister of the Economy of 5 November 2009 on detail requirements for aerosol products (Journal of Laws No. 188, item 1460, with subsequent amendments);

2015/830/EC Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH);

1907/2006/EC Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EU and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, , with subsequent amendments;

1272/2008/EC Regulation of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives: 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006, with subsequent amendments;

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2008/98/EC Directive of European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives;

94/62/EC Directive of European Parliament and of the Council of 20 December 1994 on packages and package wastes.

15.2. Chemical Safety Assessment

No chemical safety assessment is required for the mixture.

16. Section: Other information

Full text of H-statements from Section 3 of this Material Safety Data Sheet

| | |
|------|---|
| H220 | Extremely flammable gas. |
| H280 | Contains gas under pressure; may explode if heated. |

Abbreviations and acronyms

| | |
|-------------|--|
| TLV-TWA | Threshold Limit Value |
| TLV-STEL | Threshold Limit Value, Short Term Exposure Limit |
| TLV-C | Ceiling exposure limit |
| BLV | Acceptable Biological Concentration |
| PBT | Persistent, bioaccumulative, and toxic (substance) |
| vPvB | very Persistent, very Bioaccumulative (substance) |
| Flam. Gas 1 | Gas flammable, category 1 |
| Press. Gas | Gas under pressure |

Training

Before working with the product, a user should get acquainted with occupational safety regulations related to chemicals handling, and especially have special proper workplace training. Persons involved in transport of hazardous materials under the ADR Agreement should be adequately trained in their duties (general training, workplace training and safety training).

References to key literature and data sources

This Material Safety Data Sheet was developed on the base of the safety data sheet provided by the manufacturer, bibliographic data, online databases (eg. ECHA, TOXNET, COSING) and knowledge and experience and with taking into account the current legislation in force.

Additional Information

Classification was carried out on the base of data related to the content of hazardous constituents by means of a calculation method and according to guidelines of Regulation 1272/2008/EC (CLP) with subsequent amendments.

Prepared by: mgr Dominik Domagała

This Material Safety Data Sheet is issued by: NANOIL Sp.J.

The above mentioned information has been developed based on the currently available data characterising the product, and manufacturer's experience and knowledge within this scope. They are not quality description of the product or a guarantee of specific properties. The data shall be used only as an aid in safe proceeding during the product transport, handling and storage. It does not release the user from the responsibility for improper use of the information above and observing all legal standards applicable in this field.



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