

Version 2.0

Date of preparation: 25.02.2020

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier** MDS SEAL PROTEC, Silicone oil based grease, aerosol

UFI: SF00-G0C5-V005-4PCR

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

Relevant identified uses:

The product is intended for the lubrication, protection and maintenance of window and door seals. It improves elasticity, protects against freezing, prevents degradation and crumbling, protects against excessive shrinkage. It improves the efficiency of sealing the gasket to the window and door frame.

Properties:

Non-marking, colorless, odorless, neutral in contact with plastics.

Uses advised against:

No data.

1.3. Details of the supplier of the safety data sheet

Producer\ supplier:

MEDOS Paweł Buławka spółka komandytowa
Poland; PL 86-200 Chełmno;
ul. Magazynowa 3 Street
NIP 875 10 02 162 ; tel. 56 691 20 79

E-mail address of the person responsible for the SDS: medos@medos.pl**1.4. Emergency telephone number**

112 (emergency call)

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture**

Classification according to 1272/2008/EC:

Hazard from physical properties:

Flam. Aerosol 1

H222 Extremely flammable aerosol.

H229 Pressurized container: May burst if heated.

Hazards to man:

None.

Hazards to environment:

None.

2.2. Label elements

Label accordance with Regulation 1272/2008/EC

Pictograms:



Signal words: DANGER

Hazard statements:

H222 Extremely flammable aerosol.

H229 Pressurized container: May burst if heated.

Precautionary statements:

General

P102 Keep out of reach of children.

Prevention

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.

Storage

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

Removal

P501 Dispose of contents/container to disposal containers.

2.3. Other hazards

The mixture contains no substances that meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable.

3.2. Mixtures

| Chemical name | Identifier | Classification CLP | | Content [wt %] |
|---------------|---|--|--------------------------|----------------|
| | | Hazard Class and Category Code(s) | Hazard statement Code(s) | |
| Butane | CAS: 106-97-8 EC: 203-448-7 Index: 601-004-00-0 REACH: - | Flam. Gas 1 Press. Gas (liquified) Note C, U | H220 H280 | 50-60* |

| | | | | |
|-------------------|--|--|--------------|--------|
| Propane | CAS: 74-98-6 EC: 200-827-9 Index: 601-003-00-5 REACH: - | Flam. Gas 1 Press. Gas (liquefied) Note U | H220 H280 | 50-60* |
| White mineral oil | CAS: 8042 -47 -5 EC: 232-455 -8 Index: - REACH: 01-2119487078-27-0013 | None | None | 40-50 |

*The total content of butane and propane is 40 % - 50 %.

In section 16 stated the importance of H-phrases and symbols.

Note C: Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

Note U (Table 3): When put on the market gases have to be classified as 'Gases under pressure', in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case.

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

- Take off contaminated clothing and shoes. Clean contaminated skin, rinse with plenty of water, and then with mild soap and water.
- Get medical attention if necessary.

In case of eye contact:

- Remove any contact lenses. Flush eyes with a plenty of water, occasionally lifting the upper and lower eyelids. Continue to rinse for at least 15 minutes. Cover the eyes with a compress.
- Get medical attention if necessary.

If inhaled:

- Move the affected person to fresh air and keep in a comfortable position for breathing. Ensure warmth and peace.
- Get medical attention if necessary.

If swallowed:

- Rinse mouth with water. Do not induce vomiting.
- Get medical attention if necessary.

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

Usually does not cause any health problems.

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

In the workplace should be available measures to allow immediate first aid. First aiders should wear medical gloves. The decision about the procedure is made by the doctor after assessing the victim's condition.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Carbon dioxide CO₂, extinguishing foam, extinguishing powders, water spray.

Unsuitable extinguishing media:

Full water jet.

5.2. Special hazards arising from the substance or mixture

Aerosol, under pressure, extremely flammable.

Water may be an ineffective extinguishing agent. It should be used to cool containers to prevent an explosion. Cool containers exposed to fire or high temperature with water from a safe distance; if possible, remove them from the danger area.

Combustion products:

In case of fire hazardous products like carbon oxide and carbon dioxide (CO_x) may be formed.

Explosive mixtures:

Under favorable thermal conditions, some components may form explosive mixtures with air.

5.3. Advice for firefighters

- Use standard chemical firefighting methods.
- Cool containers exposed to high temperatures with water and remove from the danger area if possible.
- Precipitate vapors with dispersed streams of water.
- Do not allow extinguishing media to get into sewage system and watercourses.

Fire brigade protective equipment:

- Full protective equipment.
- Self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- Wear appropriate personal protective equipment.
- Access of non-emergency personnel to the area of accident should be restricted until the completion of the disposal of the product.
- Provide adequate ventilation.

6.2. Environmental precautions

- Prevent contamination of environment.
- Secure the gullies.
- In the event of any serious pollution of the environment, notify the appropriate administrative authority, control and rescue services.

6.3. Methods and material for containment and cleaning up

- Remove all potential sources of ignition.
- Do not eat, drink, smoke or take drugs at work.
- Secure damaged packaging.
- Ventilate the affected area, do not breathe vapours
- Apply bunds along the path of the moving mixture.
- Collect mechanically and using absorbent materials (eg dry sand).
- Collected product put in a substitute container and direct to the destruction.

6.4. Reference to other sections

Disposal - see Section 13. Personal protective equipment - see Section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Recommendations when working with a mixture:

- Provide adequate ventilation.
- Avoid contact with skin and eyes.
- Avoid breathing gases / vapors / aerosols.
- Prevent seepage into the sewage system.
- Pressurized container: protect from sunlight and heat above 50 °C.
- Do not pierce or burn, even after use.
- Do not spray on an open flame or any incandescent material.
- Keep away from sources of ignition - No smoking.
- Prevent fire igniting and spreading.
- Apply general occupational hygiene regulations:
 - ✓ Do not eat, drink or smoke when using this product.
 - ✓ Take off contaminated clothing.
 - ✓ Wash contaminated clothing before reuse.
 - ✓ Wash hands and face before breaks and after working with the product..

7.2. Conditions for safe storage, including any incompatibilities

- Use sufficiently efficient ventilation in the workplace and in the warehouse (the possibility of producing explosive mixtures with air).
- Avoid contact with oxidizers.
- Store only in the original container.
- Keep container tightly closed.
- Store in a cool and dry place (below 50 °C).
- Keep away from food, drink and animal feeding stuffs.
- Protect against sunlight and heat sources.
- Observe storage regulations under pressure.

Advice on protection against fire and explosion:

- Do not use the product near an open flame.
- Use only non-sparking tools.

- Prevent buildup of static electricity.
- Read the content of the safety data sheet.
- Do not use until all safety precautions have been read and understood.

7.3. Specific end use(s)

Gasket maintenance grease (SECTION 1, 1.2).

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ordinance on maximum permissible concentration and intensity of harmful factors in the work environment in accordance with national limit values.

EH40/2005 Workplace exposure limits, fourth edition, published 2020, ISBN 978 0 7176 6733 8.

| Substance name | Identifier | TWA [mg/m ³] | STEL [mg/m ³] | BLV |
|----------------|---------------|--------------------------|---------------------------|-----------------|
| Butane | CAS: 106-97-8 | 1450 (EN) | 1810 (EN) | not established |

Monitoring procedures: Use methods described in European Standards.

8.2. Exposure controls

Appropriate engineering controls:

Storage rooms and work stations must be adequately ventilated to keep the concentration of vapors in the air below their permissible values.

For professional use: effective local exhaust ventilation and general room ventilation are required to reduce worker exposure. Monitor the work environment to ensure adequate ventilation. If exhaust ventilation is insufficient, wear suitable respiratory protection.

Individual protection measures

Eye/face protection:



Avoid contact with eyes when handling the product.

In case of direct contact, wear non-fogging safety goggles (in accordance with EN 166).

Skin Protection:



Hands protection:

Avoid contact with skin. When using the product in a professional activity, assuming frequent or long-term exposure, use hand protection selected according to the working conditions. For this purpose, chemical resistant protective gloves should be used in accordance with EN 374. Recommended glove material: nitril rubber. Recommended material thickness: >0.36 mm. The exact breakthrough time 480 min.

Glove material should be selected considering breakthrough time, permeation rate and degradation. It is recommended to regularly change gloves and immediately replace them if there are any signs of wear, damage (tearing, perforation) or changes in appearance (color, elasticity, shape). Apply protective cream to exposed parts of the body.

Body protection:

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection:



Avoid breathing vapors of the product.
Under normal operating conditions is not required.

General safety and hygiene tips:

Mandatory general regulations on occupational health.

Thermal Hazards:

Not applicable.

Biological monitoring:

Not specified.

Environmental exposure controls

Do not allowed into sewage or groundwater.

Permissible level of the substance in the air: not established.

Permissible values of pollution indicators in industrial wastewater discharged into sewage systems: not established.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|---------------|
| Physical state: | Aerosol oil |
| Colour: | Colorless |
| Odour: | Odorless |
| Melting point/freezing point: | Not specified |
| Boiling point or initial boiling point and boiling range: | Not specified |
| Flammability: | Not specified |
| Lower and upper explosion limit: | Not specified |

| | |
|--|---------------|
| Flash point: | Not specified |
| Auto-ignition temperature: | Not specified |
| Decomposition temperature: | Not specified |
| pH: | Not specified |
| Kinematic viscosity: | Not specified |
| Solubility: | Not specified |
| Partition coefficient n-octanol/water (log value): | Not specified |
| Vapour pressure: | Not specified |
| Density and/or relative density: | Not specified |
| Relative vapour density: | Not specified |
| Particle characteristics: | Not specified |

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Not specified.

9.2.2. Other safety characteristics

Not specified.

SECTION 10: Stability and reactivity

10.1. Reactivity

May react with strong oxidizers.

10.2. Chemical stability

Stable under normal conditions of storage and use.

10.3. Possibility of hazardous reactions

There is a risk of explosive vapor / air mixtures forming.

10.4. Conditions to avoid

Avoid sources of ignition, high temperature, electrostatic discharge.

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

None under normal conditions of use and storage.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity:

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

| Acute toxicity: | | | | | | | |
|-------------------|------------|------------|----------|-------------|-----------------|---------|-------------------------|
| Substance | CAS number | Exposition | Parametr | Value | Exposition time | Species | Determining the value |
| White mineral oil | 13463-67-7 | Ingestion | LD50 | >5000 mg/kg | | Rat | Literature/ Supplier |
| | | Skin | LD50 | >5000 mg/kg | | Rabbit | Literature/ Supplier |

| | | | | | | | |
|---------------|-----------------|-------------------------------------|------|-------------|-----|-----|---------------------------------|
| | | <i>Inhalation (gas/vapours)</i> | LC50 | >5 mg/l | 4 h | Rat | <i>Literature/ Supplier</i> |
| <i>Butane</i> | <i>100-41-4</i> | <i>Inhalation (gas/vapours)</i> | LC50 | 658000 mg/l | 4 h | Rat | <i>Literature/ Supplier</i> |

Skin corrosion/irritation:

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

Serious eye damage/irritation:

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

Respiratory or skin sensitization:

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.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Not specified.

11.2.2. Other information

Usually does not cause any health problems.

SECTION 12: Ecological information

12.1. Toxicity

Detailed studies have not been conducted, therefore no more detailed data is available. The mixture has not been classified as dangerous for the environment. The product should not be allowed to penetrate and spread in soil, sewage systems, ground water and watercourses.

12.2. Persistence and degradability

Readily biodegradable.

12.3. Bioaccumulative potential

White mineral oil - a natural biodegradation in water under aerobic conditions (biodegradability can only be limited by low solubility in water).

12.4. Mobility in soil

No data.

12.5. Results of PBT and vPvB assessment

The substances contained in the mixture do not meet the PBT and vPvB criteria.

12.6. Endocrine disrupting properties

Not specified.

12.7. Other adverse effects

No data.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

During removal of waste comply with the regional/national laws.

Community legislation:

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

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste as amended.

Disposal methods

- Disposal in accordance with the local/national legislation.
- Empty containers give for appropriate rubbish dump or for disposal in accordance with the local/national legislation.
- Used aerosol cans may contain residual propane / butane gas and pose a fire or explosion hazard.
- Do not pierce or crush under uncontrolled conditions.
- Dispose of in accordance with applicable regulations.
- Empty, emptied packaging should be disposed of in accordance with applicable regulations.




Waste code:

16 05 04* Gases in pressure containers (including halons) containing dangerous substances.

Packaging waste code:

15 01 11* Metallic packaging containing a dangerous solid porous matrix (for example asbestos), including empty pressure containers.

SECTION 14: Transport information

| | | ADR/RID | IMGD | IATA |
|--------------|----------------------------|---|---|---|
| 14.1. | UN number or ID number | UN 1950 | UN 1950 | UN 1950 |
| 14.2. | UN proper shipping name | AEROSOLS, flammable | | |
| 14.3. | Transport hazard class(es) | 2 | 2 | 2 |
| | Warning sticker number 2 |  |  |  |
| | Classification code | 5F | 5F | 5F |
| 14.4. | Packing group | None | none | none |

| | | | | |
|-------|---|------------------|---------------|------|
| 14.5. | Environmental hazards | none | EMS: F-D; S-U | none |
| 14.6. | Special precautions for user | Tunnel Code: D/E | | |
| 14.7. | Maritime transport in bulk according to IMO instruments | Not applicable. | | |

SECTION 15: Regulatory information

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

The safety data sheet has been prepared on the basis of:

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC 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 as amended.

Regulation (EC) No 1272/2008 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 as amended.

Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Directive Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC.

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

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste as amended.

Commission directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Commission directive 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC.

Commission directive 2009/161/EU of 17 December 2009 establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.

Commission directive (EU) 2017/164 of 31 January 2017 establishing a fourth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 91/322/EEC, 2000/39/EC and 2009/161/EU.

COMMISSION DIRECTIVE (EU) 2019/1831 of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC

15.2. Chemical safety assessment

The Chemical Safety Assessment has not been performed for the mixture.

SECTION 16: Other information

The full text of statements H under Sections 2 and 3:

| | |
|-----------------|---|
| H220 | Extremely flammable gas. |
| H222 | Extremely flammable aerosol. |
| H229 | Pressurized container: May burst if heated. |
| H280 | Contains gas under pressure; may explode if heated. |
| Flam. Aerosol 1 | Flammable aerosols, Hazard Category 1. |
| Flam Gas 1 | Flammable gases, Hazard Category 1. |
| Press. Gas | Gases under pressure: Liquefied gas |

Key to abbreviations and acronyms:

| | |
|-----------|---|
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road. |
| BLV | Biological Limit Value. |
| CAS | Unique identifier of chemical substances (<i>Chemical Abstracts Service</i>). |
| EC number | EC number means one of the three numbers listed below: <ul style="list-style-type: none"> • the number assigned to the substance in the European List of Existing Commercial Substance Substances (EINECS), • the number assigned to the substance in the European List of Notified Substances (ELINCS), • number in the list of chemicals listed in the European Commission's publication "No-longer polymers" (NLP). |
| IATA | International Air Transport Association. |
| DNEL | Derived No-Effect Levels. |
| PNEC | Derived No-Effect Levels. |
| PBT | Substance persistent, toxic and bioaccumulative. |
| RID | The Regulation concerning the International Carriage of Dangerous Goods by Rail. |
| STEL | Short-Term Exposure Limit. |
| TWA | Time Weighted Average. |
| UN number | Material identification number (ONZ number, UN number). |
| vPvB | Very persistent and very bioaccumulative substance. |

Classification according to Regulation 1272/2008/EC:

Classification
Flam. Aerosol 1; H222; H229

Classification procedure:
"Aerosols" bridging principle

Other information:

The product described in the safety data sheet should be stored and used in accordance with good industrial practice and in accordance with all legal regulations.

The information above is based on a current available data concerning the product, but also on the experience and knowledge in this field of the producer.

They are neither a quality description of the product nor a guarantee of particular features. They are also treated as aid to safety in transport, storage and usage of the product. This does not free the user from the responsibility of improper usage of the information above also of improper compliance with the law norms in the field.

The user is responsible for creating conditions for the safe use of the product and it is the user who takes responsibility for the consequences of incorrect use of this product.

Training:

Before working with the product, it is mandatory to subject employees to health and safety training due to the presence of chemical agents in the work environment. Conduct, document and familiarize employees with the results of occupational risk assessment in the workplace related to the occurrence of chemical agents.

Prepared by ISOTOP Consulting Company; www.isotop.pl; e-mail: reach@isotop.pl

SDS from 25.02.2020 (Version 1.0) has been revised in sections: 1.3, 9.1, 9.2.1, 9.2.2, 11.1, 11.2, 11.2.1, 11.2.2, 12.6, 12.7, 14.1, 14.7, 15.1. Changed text marked.

This SDS replaces and annuls all the previous versions.