

Material Safety data sheet according to 1907/2006/EC, Article 31

SECTION 1: Identification of the substance/mixture and of the company

1.1 Product identifier

• **Trade name: APIEZON GREASE L**

• Article number: 51-1625-0743

• 1.2 Relevant identified uses of the substance or mixture and uses advised against Lubricants and additives

• Application of the substance / preparation: Sealing and lubricating grease for ultra high vacuum applications

• **1.3 Details of the supplier of the safety data sheet Supplier:**

Oxford Instruments NanoAnalysis

Halifax Rd, High Wycombe HP12 3SE

United Kingdom

Tel: +44 (0) 1494 442255

Further information obtainable from: Technical Support

SECTION 2: Hazards Identification

• 2.1 Classification of the substance or mixture

• Classification according to Regulation (EC) No 1272/2008

GHS07 Acute Tox. 4 H302 Harmful if swallowed. Acute Tox. 4 H312 Harmful in contact with skin.

• 2.2 Label elements

• Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

• Hazard pictograms

GHS07

• Signal word Warning

• Hazard statements

H302+H312 Harmful if swallowed or in contact with skin.

• Precautionary statements

P280 Wear protective gloves / protective clothing.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P321 Specific treatment (see on this label).

P330 Rinse mouth.

P362+P364 Take off contaminated clothing and wash it before reuse.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

• 2.3 Other hazards

• Results of PBT and vPvB assessment

• PBT: Not applicable

SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation: Substances

• CAS No. Description

12678-02-3 APIEZON GREASE L - Identification number(s) AGB7270

SECTION 4: First aid measures

4.1 Description of first aid measures

• General information: Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

• After inhalation: Remove to fresh air. If rapid recovery does not occur, get medical attention.

• After skin contact: Wash with soap and water.

• After eye contact: Rinse opened eye for several minutes under running water.

• After swallowing: Call for a doctor immediately.

Do not induce vomiting, obtain medical attention.

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

No adverse effects expected.

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

No special treatment required.

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SECTION 5: Firefighting Measures

- 5.1 Extinguishing media Carbon dioxide, dry powder, foam or water fog. Do not use water jets.
 - Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
 - 5.2 Special hazards arising from the substance or mixture None.
 - 5.3 Advice for firefighters
- Wear self-contained breathing apparatus in confined areas and for any significant fire.
- Protective equipment: No special measures required.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
Spilt product constitutes a slip hazard.
- 6.2 Environmental precautions:
Do not allow to enter sewers/ surface or ground water.
Extinguish naked flames and clean up spillages promptly.
Do not wash spilt materials directly into any public water systems.
 - 6.3 Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Can be wiped from surfaces and residues cleaned with water and detergent.
 - 6.4 Reference to other sections

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling Keep eye wash bottles filled with water readily available.
- Information about fire - and explosion protection: Store away from naked flames.
 - 7.2 Conditions for safe storage, including any incompatibilities
 - Storage: Requirements to be met by storerooms and receptacles: No special requirements.
 - Information about storage in one common storage facility: Not required.
 - Further information about storage conditions:
Prevent spillages and minimise operations which will contaminate work area and equipment.
 - 7.3 Specific end use(s) No further relevant information available

SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.
- 8.1 Control parameters
 - Ingredients with limit values that require monitoring at the workplace: 12678-02-3 APIEZON GREASE L
TWA Short-term value: 10 mg/m³
Long-term value: 5 mg/m³
 - Additional information: The lists valid during the making were used as basis.
 - 8.2 Exposure controls
 - Personal protective equipment: General protective and hygienic measures:
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin. Store away from heat.
 - Respiratory protection: Not required under normal conditions.
 - Protection of hands: Protective gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. Protective gloves are optional.
 - Material of gloves: The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
 - Penetration time of glove material. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
 - Eye protection: Use safety glasses.
 - Body protection: Should be laundered regularly

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

• General Information

• Appearance: Form: Fluid Colour: Yellow Odour: Odourless Odour threshold: Not determined.

• pH-value: Not determined. Change in condition

Melting point/freezing point: 42-52 °C

Initial boiling point and boiling range: 500 °C

• Flash point: 200 °C

• Flammability (solid, gas): Not applicable.

• Ignition temperature: 250 °C

• Decomposition temperature: Not determined.

• Auto-ignition temperature: Not determined.

• Explosive properties: Product does not present an explosion hazard.

• Explosion limits: Lower: Not determined. Upper: Not determined.

• Vapour pressure at 20 °C: 10 hPa

• Density at 20 °C: 0.896 g/cm³

• Relative density Not determined. Vapour density Not determined. Evaporation rate Not determined.

• Solubility in / Miscibility with

water: Not miscible or difficult to mix.

• Partition coefficient: n-octanol/water: Not determined.

• Viscosity: Dynamic: Not determined. Kinematic: Not determined.

• 9.2 Other information No further relevant information available

SECTION 10: Stability and reactivity

10.1 Reactivity Stable under normal conditions of use.

• 10.2 Chemical stability Stable under normal conditions of use.

• Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

• 10.3 Possibility of hazardous reactions No dangerous reactions known.

• 10.4 Conditions to avoid Temperature >120°C

• 10.5 Incompatible materials: Strong oxidising agents.

• 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

• Acute toxicity: Harmful if swallowed or in contact with skin.

• LD/LC50 values relevant for classification:

Oral LD50 2,000 mg/kg (rat) Dermal LD50 2,000 mg/kg (rabbit)

• Skin corrosion/irritation Based on available data, the classification criteria are not met.

• Serious eye damage/irritation May cause transient irritation.

• Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

• CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

• 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

SECTION 12: Ecological Information

12.1 Toxicity Expected to be practically non-toxic.

• Aquatic toxicity: No further relevant information available.

• 12.2 Persistence and degradability Inherently biodegradable.

• 12.3 Bioaccumulative potential Has the potential to bioaccumulate.

• 12.4 Mobility in soil Product has low mobility in soil.

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SECTION 12: Continued....

Additional ecological information:

- General notes:
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- 12.5 Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.
- 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

- Recommendation
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Product and packaging must be disposed of in accordance with local and national regulations. May be incinerated. Unused product may be returned for reclamation.
- Recommendation: Disposal must be made according to official regulations

SECTION 14: Transport Information

- 14.1 UN-Number Not relevant.
- ADR, ADN, IMDG, IATA Void
- 14.2 UN proper shipping name Not relevant.
- ADR, ADN, IMDG, IATA Void
- 14.3 Transport hazard class(es) Not relevant.
- ADR, ADN, IMDG, IATA
- Class Void
- 14.4 Packing group Not relevant.
- ADR, IMDG, IATA Void
- 14.5 Environmental hazards: Not applicable.
- 14.6 Special precautions for user Not applicable.
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.
- UN "Model Regulation": Void

SECTION 15: Ecological information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I Substance is not listed.
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative