

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: Silicone High Vacuum Grease**

• Article number: A4-903

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

• Application of the substance / the preparation: No data available.

• **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

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

• 2.2 Label elements: Labelling according to Regulation (EC) No 1272/2008

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

• Hazard pictograms GHS07

• Signal word Warning

• Hazard statements H315 Causes skin irritation. H319 Causes serious eye irritation.

• Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read carefully and follow all instructions.

P264 Wash thoroughly after handling.

P280 Wear protective gloves / eye protection / face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332+P313 If skin irritation occurs: Get medical advice/attention.

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

P337+P313 If eye irritation persists: Get medical advice/attention.

• 2.3 Other hazards: Acute Effects

Eye: Direct contact may cause temporary redness and discomfort.

Skin: No significant irritation expected from a single short-term exposure. Page 2/7

53.1.26 Inhalation: No significant effects expected from a single short-term exposure.

Oral: Low ingestion hazard in normal use.

Prolonged/Repeated Exposure Effects

Skin: No known applicable information. Inhalation: No known applicable information.

Oral: No known applicable information.

Signs and Symptoms of Overexposure: No known applicable information.

Medical Conditions Aggravated by Exposure: No known applicable information.

• Results of PBT and vPvB assessment

• PBT: Not applicable. • vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures

• Description: Mixture of substances listed below with nonhazardous additions.

• Dangerous components: CAS: 63148-62-9 Polydimethylsiloxane

Skin Irrit. 2, H315; Eye Irrit. 2, H319 80.0%

CAS: 70131-67-8 EINECS: 213-915-7

Dimethyl siloxane, hydroxy-terminated

Acute Tox. 3, H331; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT

SE 3, H335 10.0%

• Additional information: For the wording of the listed hazard phrases refer to section 16.

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SECTION 4: First aid measures

Description of first aid measures

- General information: Immediately remove any clothing soiled by the product.
- After inhalation: No adverse effects are anticipated from inhalation.

If symptoms are experienced remove source of contamination or move victim to fresh air. If irritation persists, obtain medical advice.

- After skin contact: Wash with water and soap and rinse thoroughly.

No health effects expected. If irritation does occur flush with lukewarm, gently flowing water for 5 minutes. If irritation persists, obtain medical advice.

- After eye contact: Rinse opened eye under running water. If symptoms persist, consult a doctor. If irritation occurs, flush eye(s) with lukewarm gently flowing water for 5 minutes. Obtain medical attention.

- After swallowing: If irritation or discomfort occur, obtain medical advice.

- Information for doctor: Treat according to person's condition and specifics of exposure.

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

No further relevant information available.

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

No further relevant information available.

SECTION 5: Firefighting Measures

5.1 Extinguishing media: Suitable extinguishing agents:

Use fire extinguishing methods suitable to surrounding conditions.

On large fires use dry chemical, foam or water spray. On small fires use carbon dioxide (CO₂), dry chemical or water spray. Water can be used to cool fire exposed containers.

- 5.2 Special hazards arising from the substance or mixture

No further relevant information available.

- 5.3 Advice for firefighters: Determine the need to evacuate or isolate the area according to your local emergency plan.

Use water spray to keep fire exposed containers cool.

- Protective equipment: Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals.

- Additional information

Flash Point: >300 °C (Closed Cup). Autoignition Temperature: Not determined.

Flammability Limits in Air: Not determined.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Observe all personal protection equipment recommendations described in Sections 5 and 8.

Wipe up or scrape up and contain for salvage or disposal. Clean area as appropriate since spilled materials, even in small quantities, may present a slip hazard. Final cleaning may require use of steam, solvents or detergents. Dispose of saturated absorbant or cleaning materials appropriately, since spontaneous heating may occur. Local, state and federal laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which laws and regulations are applicable.

- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.

For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbant.

- 6.3 Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Scrape up and place in a container fitted with a lid. The spilled product produces an extremely slippery surface.

- 6.4 Reference to other sections See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information

SECTION 7: Handling and storage

7.1 Precautions for safe handling Use with adequate ventilation. Avoid eye contact.

- Information about fire - and explosion protection: This material in its finely divided form presents an explosion hazard. Follow NFPA 654 (for chemical dusts) or 484 (for metal dusts) as appropriate for managing dust hazards to minimise secondary explosion potential.

- 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:

Use reasonable care and store away from oxidising materials.

- Further information about storage conditions: Keep container tightly sealed.

Trade name: Loctite 460

SECTION 8: : Exposure controls/personal protection

8.1 Control parameters

- Additional information about design of technical facilities:

Local Ventilation: None should be needed.

General Ventilation: Recommended.

- Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- Additional information: The lists valid during the making were used as basis.

- 8.2 Exposure controls: Personal protective equipment:

- General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- Respiratory protection: Not required.

- 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

- 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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- 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:Tightly sealed goggles

SECTION 9: Physical and chemical properties

- General Information

- Appearance: Form: Pasty Colour: Whitish Odour: Odourless

- Odour threshold: Not determined.

- pH-value: Not determined

Change in condition

Melting point/freezing point: Undetermined.

Initial boiling point and boiling range: Undetermined.

- Flash point: >300 °C Flammability (solid, gas): Not applicable.

- Decomposition temperature: Not determined.

- Auto-ignition temperature: Product is not selfigniting.

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

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

- Vapour pressure: Not determined.

- Density at 20 °C: 1.1 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.

- Solvent content: VOC (EC) 0.00 % Solids content: 0.0 %

SECTION 10: Stability and reactivity

10.1 Reactivity No further relevant information available.

- 10.2 Chemical stability Stable.

- Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- 10.3 Possibility of hazardous reactions Hazardous polymerisation will not occur.

- 10.4 Conditions to avoid No further relevant information available.

- 10.5 Incompatible materials: Oxidising material can cause a reaction.

- 10.6 Hazardous decomposition products:

Thermal breakdown of this product during fire or very high heat conditions may evolve the following decomposition products: Carbon oxides and traces of incompletely burned carbon compounds.

Silicon dioxide. Formaldehyde.

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SECTION 11: Toxicological Information

11.1 Information on toxicological effects

- Acute toxicity Based on available data, the classification criteria are not met
- LD/LC50 values relevant for classification:
 63148-62-9 Polydimethylsiloxane
 Oral LD50 >24,000 mg/kg (rat)
 Dermal LD50 >2,000 mg/kg (rabbit)
- Specific symptoms in biological assay:
- Skin corrosion/irritation
 Causes skin irritation.
 May be irritating.
- Serious eye damage/irritation
 Causes serious eye irritation.
 May be irritating.
- Respiratory or skin sensitisation No data available.
- Additional toxicological information:
- 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

- Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- 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. Not classified as a hazardous waste.
- Recommendation: Disposal must be made according to official regulations

SECTION 14: Transport Information

- 14.2 UN proper shipping name
- ADR, ADN, IMDG, IATA Void
- 14.3 Transport hazard class(es) ADR, ADN, IMDG, IATA Class Void
- 14.4 Packing group ADR, IMDG, IATA Void
- 14.5 Environmental hazards: Marine pollutant: No
- 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

- 5.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge and should assist the user with the safe handling of this material when properly applied. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.