

Product name: Micro-Tec G4 high-vacuum silicone grease
Document Nr.: SD00164001004-01

Date: October 5th, 2022
Version: 4.0 Page 1 of 11

Section 1: Identification of the substance or mixture and the company

1.1. Product Identifier

Micro-Tec G4 high-vacuum silicone grease
The substance is not subject to regulation according to REACH

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

Sealing and lubrication of vacuum and pressure systems, laboratory equipment and microscopes

1.3. Details of the supplier of the Safety Data Sheet

Rave Scientific
100 Franklin Square Dr.
Suite 101
Somerset, NJ 08873
Telephone: 1-732-898-3828
Email: info@ravescientific.com
Web: www.ravescientific.com

1.4 Emergency telephone number

911 (USA) or your national emergency telephone number for chemical spills, leaks, fires, exposures or accidents

Section 2: Hazards identification

2.1. Classification of the substance or mixture according to regulation EC Nr. 1272/2008 (CLP)

Physical:	Not classified
Health:	Not classified
Environment:	Not classified
Other hazards:	Not classified

(Contd. on page 2)

Product name: Micro-Tec G4 high-vacuum silicone grease
Document Nr.: SD00164001004-01

Date: October 5th, 2022
Version: 4.0 Page 2 of 11

(Contd. of page 1)

2.2 Labelling elements

Labelling accordance to Regulation EC Nr. 1272/2008

Hazard pictogramm:	None
Signal word:	None mandated
Hazard statement(s):	None
Precautionary statement(s):	P102: Keep out of reach of children P233: Keep container tightly closed P280: Wear protective gloves/protective clothing/eye protection/face protection P337/313: If eye irritation persists; get medical advice/attention P501-2: Dispose of contents/container to an authorised waste collection point
Supplemental hazard info:	None

2.3 Other hazards

Results of PBT and vPvB assessment

According to the results of its assessment, the substance is not a PBT or a vPvB

Section 3: Composition / information on components

3.1. Substances

Not applicable

3.2 Mixtures

CAS Nr	% (weight)	Name	Classification according to directive 67/548/EEC [DSD]	Classification according to regulation Nr 1272/2008 [CLP]
63148-62-9	>75%	Polymethylsiloxane		
7631-86-9	5-15%	Silica, amorphous		
70131-67-8	5-10%	Dimethyl, hydroxy terminated		

(Contd. on page 3)

Product name: Micro-Tec G4 high-vacuum silicone grease
Document Nr.: SD00164001004-01

Date: October 5th, 2022
Version: 4.0 Page 3 of 11

(Contd. of page 2)

Section 4: First aid measures

4.1. Description of first aid measures

General information:	The usual precautions for handling chemical substances should be observed. If symptoms should occur, seek medical advice. Immediately remove any clothing soiled by the product
Contact with eyes:	Rinse cautiously with water for several minutes. If possible, remove contact lenses. Continue rinsing.
Contact with skin:	Wash with water and soap. Seek medical attention if irritation persists.
Inhalation:	Fresh air, keep warm and at rest. Seek medical attention if ill effects occur
Ingestion:	If swallowed, do not induce vomiting Seek immediate medical advice

4.2. Important symptoms and effects, either immediate or delayed

Inhalation:	No further relevant information available
Ingestion:	No further relevant information available
Skin contact:	Irritating to skin – Symptoms redness and pain
Eye contact:	Irritating to eyes – Symptoms redness, pain and/or impaired vision.
Other information:	No further data available

4.3. Indication of any immediate medical attention and special treatment

No further relevant information available

Section 5: Firefighting Measures

5.1. Extinguishing media

Water spray, foam, carbon dioxide or dry agent
Unsuitable extinguishing agents: Water with full yet.

5.2 Special hazards arising from the substance or mixture

Not a fire hazard. Will burn if involved in a fire. Produces SiO₂ and carbon oxides (CO, CO₂)

(Contd. on page 4)

Product name: Micro-Tec G4 high-vacuum silicone grease
Document Nr.: SD00164001004-01

Date: October 5th, 2022
Version: 4.0 Page 4 of 11

(Contd. of page 3)

5.3 Advice to firefighters

Wear full protective clothing. Wear self-contained breathing apparatus.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear suitable protective clothing including eye/face protection

6.2 Environmental precautions

Avoid release into the environment

6.3 Methods and material for containment and clean up

Clean up spills immediately

The material presents a slip hazard and spills must be cleaned thoroughly. Collect spillage, absorbed spillage and wipes in a suitable container for disposal.

Wash spill area with steam, solvents or detergents to remove last traces of residue.

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

Do not get in eye, on skin or on clothing.

Wash thoroughly after use

Wear protective gloves/protective clothing/eye protection/face protection

Have eyewash bottles available

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly close, in a cool, well-ventilated place

For safe storage, store between 5°C and 30°C

Keep out of reach of children

(Contd. on page 5)

Product name: Micro-Tec G4 high-vacuum silicone grease
Document Nr.: SD00164001004-01

Date: October 5th, 2022
Version: 4.0 Page 5 of 11

(Contd. of page 4)

7.3 Specific end uses(s)

No further relevant information available

Section 8: Exposure control and personal protection

8.1. Control parameters

Exposure limits

Occupational exposure limits (OEL)

Ingredient	Material Name	Source	TWA	STEL	Peak	Notes
Amorphous silica	Amorphous silica	EU	10mg/m ³	Not established	Not available	Not available

8.2 Exposure controls

- Control procedures:** Ensure adequate ventilation. The silica dust is bound in the grease matrix and does not present as a respiration hazard under normal conditions.
- Personal protection:** Take precautions to avoid contact with eyes and skin when handling the product
- Inhalation:** In case of insufficient ventilation, wear suitable respiratory equipment:
- Hands and skin:** Wear suitable gloves against chemicals; recommended gloves:
Nitrile
- Eyes:** Wear safety goggles or full-face protection

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Appearance/physical state:** Solid, paste
- Colour:** Translucent white
- Odour:** None
- pH** Not determined
- Boiling point/range:** Not determined
- Melting point/range:** Not available
- Flash point:** Not applicable
- Evaporation rate:** Not available
- Explosion limits: upper limit:** Not available
- lower limit:** Not available

(Contd. on page 6)

Product name: Micro-Tec G4 high-vacuum silicone grease
Document Nr.: SD00164001004-01

Date: October 5th, 2022
Version: 4.0 Page 6 of 11

Vapour pressure:	Not determined	(Contd. of page 5)
Relative density:	1.1 g/cm ³ @ 25°C	
Solubility in water:	Insoluble	
Auto-ignition:	Not applicable	
Viscosity:	<= 2,000,000 cSt	

9.2 Other information

VOC: None

Section 10: Stability and reactivity

10.1. Reactivity

No hazardous reactions known if used for its intended purposes

10.2 Chemical stability

Stable

10.3 Possibility of hazardous reactions

No hazardous reactions known if used for its intended purposes

10.4 Conditions to avoid

Avoid overheating, avoid ignition sources and keep away from incompatible materials

10.5 Incompatible materials

Strong oxidising agents, strong acids

10.6 Hazardous decomposition products

CO, CO₂, SiO₂

(Contd. on page 7)

Product name: Micro-Tec G4 high-vacuum silicone grease
Document Nr.: SD00164001004-01

Date: October 5th, 2022
Version: 4.0 Page 7 of 11

(Contd. of page 6)

Section 11: Toxicological information

11.1. Information on toxicological effects

Information on likely routes of exposure:

Inhalation: No known significant effects
Skin contact: May cause mild irritation to skin
Eye contact: May cause mild irritation to eyes
Ingestion: No known significant effects
CMR effects: Carcinogenicity classification criteria not met based on available data
Germ cell mutagenicity classification criteria not met based on available data
Reproductive toxicity classification criteria not met based on available data
STOT-single exposure: may cause drowsiness or dizziness
STOT- repeated exposure: classification criteria not met based on available data
Aspiration hazard: classification criteria not met based on available data

Toxicological data:

Ingredient	Toxicity	Irritation
Polydimethylsiloxane	Not available	Not available
Silica, amorphous	Not available	Not available
EM-Tec G4 high-vacuum grease	Not available	Not available

Symptoms related to physical, chemical and toxicological characteristics

If swallowed: No effects known
If in eyes: May cause mild irritation to eyes – redness, pain, impaired vision
If inhaled: No effects known
If on skin: May cause mild irritation to skin

11.2. Endocrine disrupting properties

Not listed

11.3. Toxicity

There is no additional information

(Contd. on page 8)

Product name: Micro-Tec G4 high-vacuum silicone grease
Document Nr.: SD00164001004-01

Date: October 5th, 2022
Version: 4.0 Page 8 of 11

(Contd. of page 7)

Section 12: Ecological information

12.1. Toxicity

Not classified

12.2 Persistence and degradability

No experimental data available

12.3 Bio-accumulative potential

No experimental data available

12.4 Mobility in soil

No information available

12.5 Results of PBT and vPvB assessment

No information available

12.6 Endocrine disrupting properties

Not listed

12.7 Hazardous decomposition products

No experimental data available

Section 13: Disposal considerations

13.1. Waste treatment methods

Product: This material and its container must be disposed of in a safe way. Do not discharge into drains or the environment, dispose to an authorised waste collection point.

National regulations: Disposal should be in accordance with local, state or national legislation.

(Contd. on page 9)

Product name: Micro-Tec G4 high-vacuum silicone grease
Document Nr.: SD00164001004-01

Date: October 5th, 2022
Version: 4.0 Page 9 of 11

(Contd. of page 8)

Section 14: Transport information

14.1. UN number

UN-number: N/A

14.2 UN proper shipping name

Proper shipping name: N/A

14.3 Transport hazard class(es)

Class: N/A
ADR/RID-Classification code: N/A

14.4 Packing group

Packing: N/A

14.5 Incompatible materials

ADR/RID- Environmentally hazardous: N/A
IMDG-Marine pollutant: N/A
IATA/ICAO-Environmentally hazardous: N/A

14.6 Special precautions for user

ADR/RID-Tunnel code: N/A
IMDG-Ems: N/A
IATA/ICAO-PAX: N/A
IATA/ICAO-CAO: N/A

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC code

Not applicable

Section 15: Regulatory information

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

UN-number: N/A (Contd. on page 10)

Product name: Micro-Tec G4 high-vacuum silicone grease
Document Nr.: SD00164001004-01

Date: October 5th, 2022
Version: 4.0 Page **10** of **11**

(Contd. of page 9)

15.2 Chemical safety assessment

No information available

Section 16: Other information

RoHS Directive Compliant

This product is fully compliant with the directive 2100/65/EU Annex II (RoHS). It does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's or PBDE's.

WEEE

This product is not a piece of electrical or electronic equipment, and it therefore not governed by Directive 2002/96/EC on waste electrical and electronic equipment (WEEE)

Abbreviations:

Asp. Tox	Aspiration hazard
Carc.	Carcinogenicity
Exp.	Exposure
Flam.	Flammable
GHS	Global Harmonised System of Classification of Labelling Chemicals
Irrit.	Irritant
LC50	Lethal Concentration 50%
LCLo	Lowest published lethal concentration
LD50	Lethal Dose 50%
N/A	Not applicable
N/E	Not estimated
PBT	Persistent Bio-accumulative and Toxic
WEL	Workplace Exposure Limit
Repr.	Reproductive toxicant
RoHS	Restriction of Hazardous Substance
SEM	Scanning Electron Microscope
STEL	Short-Term Exposure Limit
STOT	Specific Target Organ Toxicity
TCLo	Lowest published toxic concentration
vPvB	very Persistent and very Bio-accumulative
WEEE	Waste Electrical and Electronic Equipment

(Contd. on page 11)

Product name: Micro-Tec G4 high-vacuum silicone grease
Document Nr.: SD00164001004-01

Date: October 5th, 2022
Version: 4.0 Page **11** of **11**

(Contd. of page 10)

This product should be stored, handled and used in accordance with good industrial hygiene practices and in accordance with any legal regulation.

The information contained herewith is based on the present state of our knowledge and is intended to describe the product from the point of view of safety requirements. It does not guarantee any specific properties.

It is the responsibility of the user to query and verify any information seeming suspect or where doubt on the validity may exist. The buyer assumes all responsibility of using and handling the product in accordance with local, state, federal and international regulations.

End of document