Section 1- Chemical Product and Company Name

Molybdenum Disulfide Grease
Part # 191D57-7

Material Safety Data Sheet

Complies with the OSHA Hazard Communication Standard:
29 CFR 1910 1200

Makita U.S.A., Inc.
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La Mirada, CA 90638

Prepared By: Stan Rodrigues

Date Revised: 05/26/2022

Emergency Contact Information

Telephone Number for Information: MAKITA: (510) 657-9881

Emergency Response:

For Chemical Emergency
Spills, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night
Within USA and Canada 1-800-424-9300

Section 2- Hazards Identification

2.1 Classification of the substance or mixture

Classification (EC1272/D008): The product is not classified as hazardous according to the CLP regulation.

Physical hazards:	Flammable solids:	Not classified
	Pyrophoric solids:	Not classified
	Self-heating substances and mixtures:	Not classified
	Corrosive to metals:	Not classified
Health hazards:	Acute toxicity-Oral:	Classification not possible
	Acute toxicity-Dermal:	Classification not possible
	Acute toxicity-Inhalation: mist:	Classification not possible
	Skin corrosion/ irritation:	Classification not possible
	Eye damage/ irritation:	Classification not possible
	Sensitization- Respiratory:	Classification not possible
	Sensitization- Skin:	Classification not possible
	Germ cell mutagenicity:	Classification not possible
	Carcinogenicity:	Classification not possible
	Reproductive toxicity:	Classification not possible
	Specific target organ toxicity- Single Exposure:	Classification not possible
	Specific target organ toxicity- Repeated Exposure:	Classification not possible
	Aspiration hazard:	Classification not possible

Environmental hazards:	Hazardous to the aquatic environment- Acute (short-term) aquatic toxicity: Classification not possible
	Hazardous to the aquatic environment- Chronic (long-term) aquatic toxicity: Classification not possible
	The hazards without the above mentioned are "Not Applicable" or "Classification not possible".

Classification (OSHA HCS 29 CFR 1910.1200):

The product is not classified as hazardous according to OSHA GHS regulations within the United States.

2.2 Label Elements

Hazard pictogram(s):	No pictogram
Signal word:	No signal word
Hazard statement(s):	No hazard statement
Precautionary statement(s):	
Prevention:	Not required
Response:	Not required
Storage:	Not required
Disposal:	Not required

2.3 Other hazards

Other Hazards which do not result in classification:	Combustibility. Keep away from ignition sources such as heat, sparks and open flames.

Section 3- Composition/ Information of Ingredients

Substance/ Mixture Mixture

Ingredient(s):

Chemical name/ Generic name:	CAS#	EC#	Wt%	EU Hazard Class	EU Category Code	USA OSHA PEL	ACGIH TLV	EU ILV
Refined mineral base oil	Confidential	Confidential	40-50	None	None	5mg/ m^3 (TWA: as oil mist)	5mg/ m^3 (TWA: as oil mist)	Not Established
Lithium soap thickener	Confidential	Confidential	1-10	None	None	Not Established	Not Established	Not Established
Additives	Confidential	Confidential	45-55	None	None	Not Established	Not Established	Not Established
(Molybdenum disulfide)	1317-33-5	215-263-9	(45-55)	None	None	15mg/ m^3 (TWA: Total dust as Mo)	10mg/ m^3 (TWA: Insoluble compounds; as Mo)	Not Established

Carcinogen:	**Chemical name:** None.	**CAS#:**	**Reference:**

No component of this product is listed as a human carcinogen or a potential carcinogen in IARC Monographs, U.S. NTP, OSHA Regulation, and Annex VI of Regulation (EC) 1272/2008.

Refined mineral base oil, by definition, is considered hazardous according to OSHA. Because it carries Threshold Limit Value (TLV) for mineral oil mist. Refined mineral base oil contain <3.0% DMSO extractable material.

PBT substance and vPvB substance:	**Chemical name:** None.	**CAS#:**	**Reference:**

No component of this product is a PBT or vPvB substance under Regulation (EC) 1907/2006.

A statement that the specific chemical identify(ies) and/or exact percentage(s) of composition has been withheld as a trade secret.

Section 4- First Aid Measures

4.1 Description of first aid measures

Inhalation:	Remove exposed person to fresh air if adverse effects are observed.
Skin:	Wash with soap and water. Get medical attention if irritation develops.
Eye:	Flush immediately with water for at least 15 minutes. Get immediate medical attention.
Ingestion:	Do not make person vomit unless directed to do so by medical personnel.
Protection of first aiders:	No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

See SECTION 11 for more detailed information on health effects and symptoms.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician:	Treatment should in general be symptomatic and directed to relieving any effects.

Section 5- Fire Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media:	Use water fog, foam, dry chemical or carbon dioxide to extinguish flames.
Unsuitable extinguishing media:	DO NOT use forcible water. See SECTION 11 for more detailed information on health effects and symptoms.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture:	In a fire or if heated, a pressure increase will occur, and the container may burst.
Hazardous combustion products:	Combustion products may include the following: Carbon oxides (CO, CO,), oxides of sulfur.

5.3 Advice for firefighters

Special precautions for fire-fighters:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus with a full face-piece operated in positive pressure mode.

Section 6- Accidental Release Measures

6.1 Personal precautions, protective equipment, and emergency procedures

For non-emergency personnel:	Eliminate all ignition sources. Evacuate surrounding areas.
For emergency responders:	Danger of slipping on leaked/spilled product.
6.2 Environmental precautions	Should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.

6.3 Methods and material for containment and cleaning up

Small Spill:	Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill:	Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g., sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Suction or scoop the spill into appropriate disposal or recycling vessels, then cover spill area with oil absorbent. Dispose of via a licensed waste disposal contractor.
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

Protective measures: Put on appropriate personal protective equipment (see SECTION 8).

Advice on general occupational hygiene: Workers should wash hands and face before eating, drinking, and smoking. Avoid contact with eyes, skin, and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a dry, cool and well-ventilated area, away from incompatible materials (see SECTION 10). Keep away from heat and direct sunlight Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Store and use only in equipment/ containers designed for use with this product. Do not store in unlabeled containers.

Not suitable: Prolonged exposure to elevated temperature.

7.3 Specific end use(s)

No further relevant information available.

Section 8- Exposure Controls/ Personal Protection

8.1 Control parameters

No exposure limit value known on the product itself.
OHSA PEL: TWA: 5 mg/ m^3 8 hours. (As oil mist, mineral)
ACGIH TLV: TWA: 5 mg/ m^3 8 hours. (As oil mist, mineral)
NIOSH REL: TWA: 5 mg/ m^3 10 hours. (As oil mist, mineral)

8:2 Exposure controls

Appropriate engineering controls: When mist is generated, the limited part should be ventilated.
A washing facility/water for eye and skin cleaning purposes should be present.

Individual protection measures, such as personal protective equipment

Eye/face protection:	☒ **Required** ☐ **Not Required** Wear safety glasses with side shields.
Skin (hand/other) protection:	☒ **Required** ☐ **Not Required** To prevent contact, wear impervious clothing such as glove or apron.
Respiratory protection:	☐ **Required** ☒ **Not Required** No special respiratory protection equipment is required under normal conditions of use with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards:	☐ **Required** ☒ **Not Required** Not normally required
Environmental exposure controls:	Avoid release to the environment

Section 9- Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance:	Smooth, Grayish black, semi-solid
Odor:	Bland odor
Odor Threshold:	Not determined
pH:	Not determined
Melting point/ freezing point (°C):	Not determined
Initial Boiling point and boiling range (°C):	Undetermined
Flash point (°C):	>200 (SETA)
Evaporation rate:	Not determined
Upper/lower flammability or explosive limits:	Not determined
Vapor pressure:	Not determined
Relative density:	Not determined
Density/specific gravity:	Ca. 1.5~1.6 (25°C)
Solubility(ies):	Negligible (in water)
Partition coefficient; n-octanol/water:	Not determined
Auto-ignition temperature (°C):	Not determined
Decomposition temperature (°C):	Not determined
Viscosity (m Pa s):	Not determined
Explosive properties:	Not determined
Oxidizing properties:	Not determined

9.2 Other information

No further relevant information available.

Sections 10- Stability and Reactivity

10.1 Reactivity No specific test data available for this product.

10.2 Chemical stability: ☒ Stable ☐ Unstable

103 Possibility of hazardous reactions: ☐ May Occur ☒ Will not Occur

10.4 Conditions to avoid: Heat, sparks, flames and other ignition sources**.**

10.5 Incompatible materials: Acids. Oxidizing agents such as H_2O_2 permanganates and perchlorates.

Halogens and halogenated compounds.

10.6 Hazardous decomposition products: Carbon oxides (CO, CO_2), oxides of sulfur.

Section 11- Toxicological Information

11.1 Information on toxicological effects

Likely routes of exposure:	Eye contact, skin ingestion
Symptoms related to the physical, chemical, and toxicological characteristics:	See SECTION 4 for skin contact, eye contact and ingestion.
Delayed and immediate effects and chronic effects from short- and long-term exposure:	Not applicable
Numerous measures of toxicity:	Not applicable
Acute toxicity:	Oral rats LD50:>5000 mg/kg (Base oil) Dermal rats LD50:>5000 mg/kg (Base oil) Inhalation (vapor): No data available Inhalation (mist): >LC50 5mg/kg (Base oil)
Skin corrosion/ irritation:	No known significant effects or critical hazards.
Serious eye damage/ irritation:	No known significant effects or critical hazards.
Sensitization-Respiratory:	No known significant effects or critical hazards.
Sensitization-Skin:	No known significant effects or critical hazards.
Germ cell mutagenicity:	No known significant effects or critical hazards.
Carcinogenicity:	Base oil, Thickener, Additives: Not listed by IARC, OSHA, NTP, EU and ACGIH.
Toxic to reproduction:	No known significant effects or critical hazards.
Specific target organ systemic toxicity following single exposure:	No known significant effects or critical hazards.
Specific target organ systemic toxicity following repeated exposure:	No known significant effects or critical hazards.
Aspiration hazard:	No known significant effects or critical hazards.
Other information:	No further relevant information available.

Section 12- Ecological Information

12.1 Toxicity	
Aquatic:	No further relevant information available.
Terrestrial:	No further relevant information available.
12.2 Persistence and degradability	No specific test data available for this product.
12.3 Bio accumulative potential	No further relevant information available.
12.4 Mobility in soil	No further relevant information available.
12.5 Results of PBT and vPvB assessment	Not applicable
12.6 Other adverse effects	No additional information available.

Section 13- Disposal Considerations

13.1 Waste treatment methods	
Product and packaging:	Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Contact local environmental or health authorities for approved disposal of this material.

Section 14- Transport Information

14.1 UN number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	
Marine pollutant:	☐ Yes Chemical (wt%): ☒ No
14.6 Special precautions for user	Not applicable
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable

Section 15- Regulatory Information

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

USA information	
TSCA (toxic substances control act)	Not regulated. All ingredients are listed.
Information on the label under OSHA HCS	
Signal word:	Not required
Hazard statement(s):	Not required
Pictogram(s):	Not required
Precautionary statement(s):	Not required
Unclassified hazards (HNOC):	Not applicable
Percentage of ingredient(s) with unknown toxicity:	Not applicable
SARA Title III & 313:	**Chemical name:** None **Wt%:**
California Proposition 65:	**Chemical name:** None **Wt%:**
Others:	No further relevant information available.
15.2 Chemical safety assessment	This product contains substances for which Chemical Safety Assessments are still required.

Section 16- Other information

Other information	No additional information available.
Date of issue:	November 17, 2016
Date of preparation of the SDS or the last change to it:	See Date Revised

Literature reference:

- U.S. Department of Labor, 29CFR Part 1910.
- U.S. Environmental Protection Agency, 40CFR Part 372.
- U.S. Consumer Product Safety Commission, 16CFR Part 1500.
- ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
- U.S. Department of Health and Human Services National Toxicology Program, Annual Report on Carcinogens.
- World Health Organization International Agency for Research on Cancer, IARC Monographs on the Evaluation on the Carcinogenic Risk of Chemicals to Humans.
- EU Regulation (EC) 1005/2009, (EC) 805/2004, (EC) 649/2012, (EC) 1907/2006, (EC) 1272/2008 and their Amendments.

Abbreviations:

EU: European Union.
CLP: Regulation in the European Union through Classification and Labelling of Chemicals.
TSCA: Toxic Substances Control Act
OSHA HCS: Occupational Safety and Health Ac~ Hazard Communication Standard (USA).
GHS: Globally Harmonized System of Classification and Labelling of Chemical~
OSHA PEL: PEL (Permissible Exposure Limit) under Occupational Safety and Health Administration.
ACGIH TLV: TLV (Threshold Limit Value) under American Conference of Governmental Industrial Hygienists.
EU ILV: Indicate Limit Values for Occupational Exposure under EU Directive 91/322/EEC, 2000/39/EC and 2006/15/EC.
PBT: Persistent, Bio accumulative and Toxic
vPvB: Very Persistent and Very Bio accumulative.