

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY NAME : Hakko Corporation
ADDRESS : 4-5, Shiokusa 2-chome, Naniwa-ku, Osaka, 556-0024 Japan
SECTION IN CHARGE : Research & Development Center
EMERGENCY TELEPHONE : 81-6-6561-3225 (FAX: 06-6568-0821)
NUMBER/REFERENCE : Sales Division

PRODUCT NAME: Silicon grease
Model: No. A1028

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION : Not applicable

GHS LABEL ELEMENTS

PICTOGRAM OR SYMBOL : None
 SIGNAL WORD : None
 HAZARD INFORMATION : Not particularly hazardous

3. COMPOSITION/INFORMATION ON INGREDIENTS

Single substance or mixture: mixture

Chemical name	Composition (%)	Chemical formula	Class Reference Number in the Gazette List (Japanese Chemical Substances Control Act)	CAS No.
Silica	1 - 10		-	
Boric acid	0.1 - 1		1- (63)	10043-35-3
Siloxane	90%.min		-	

4. FIRST-AID MEASURES

Eye contact : Immediately rinse off with water.
Skin contact : No special first-aid treatment is required.
Inhalation : No special first-aid treatment is required.
Ingestion : Receive medical attention.

5. FIRE FIGHTING MEASURES

- Extinguishing media** : For a large-scale fire, fire-extinguishing powder, fire-extinguishing foam, or water spray is effective.
For a small-scale fire, carbon dioxide (CO₂), fire-extinguishing powder, or water spray is effective.
To cool the container exposed to flame, water may be used.
- Special fire fighting procedures** : Immediately escape and keep people from access in accordance with the local emergency plan. To cool the container exposed to flame, use water spray.
- Extinguishing media not to be used** : Not specified.
- Protection of fire fighters** : To extinguish a large-scale fire containing any chemical substance, use heat-resistant protective wear with a self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

- Personal protection** : Avoid contact with the eye. Do not swallow. See "8. EXPOSURE CONTROLS/PERSONAL PROTECTION."
- Environmental Protection** : Use sand, soil, or the like, as appropriate, to prevent the product from flowing into any drain sewer, water conduit, or river.
- Removing procedures** : Refer to all the recommended protective equipment pieces for personal use, which are listed on the material safety data sheet
If leakage can be collected, recover it in an appropriate container to store it.
Use appropriate absorbent to remove leakage.
To finish the removal, the use of detergent, solvent, or high-pressure vapor is effective.

7. HANDLING & STORAGE

Handling

Technical measures : Provide appropriate ventilation.

Precaution : Avoid contact with the eye.
Do not swallow.

Storage

Storage conditions : Store the product by keeping it from any oxidizing substance while giving appropriate consideration.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

MEASURES FOR EQUIPMENT

Local exhaust ventilation system : Not required.

General exhaust ventilation system : Provide appropriate ventilation.

CONTROL CONCENTRATION : Not specified

ALLOWABLE CONCENTRATION : Boric acid

ACGIH
TLV-TWA 2mg/m³ inhalable fraction
TLV-STEL 6mg/m³ inhalable fraction

Protective gear

Protective gear for respiratory : No protective mask is required.

Protective gear for eyes : Use appropriate protective equipment.
 At least, safety glasses are required.

Protective gloves : No special gloves are required.

Protective equipment for skin
 and body : Wash hands at meals and working shifts.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL PROPERTIES

PHYSICAL STATE	: Viscous liquid
APPEARANCE	
Color	: Semi-transparent white
Odor	: Somewhat odorous
pH	: No data available
Melting point/freezing point	No data available
Boiling point/range	: >65°C
Flash point	: >101.1°C closed type
Explosion characteristics	: No data available
Vapor pressure	: No data available
Specific gravity	: 1.1g/cm ³
Solubility	: No data available
Octanol/water partition coefficient	: No data available
Decomposition temperature	: No data available
Ignition temperature	: No data available
Odor threshold	: No data available
Evaporation rate	: No data available
Flammability (solid/gas)	: Not applicable
Viscosity	: 500000cSt

10. STABILITY AND REACTIVITY

- Stability** : Stable
- Reactivity** : No hazardous polymerization occurs.
- Conditions to avoid** : None
- Incompatible materials** : A reaction with a strong oxidizer may occur.
- Combustion product** : Silicon dioxide, carbon oxides, trace of carbon compound after poor combustion, formaldehyde, and boron compound
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11. TOXICOLOGICAL INFORMATION (Including symptom of human and epidemical information)

- Acute toxicity** : Boric acid LD50 : 2,660 mg/kg when swallowed by a rat
- Skin corrosion/Skin irritation** : See the symptoms in "3. COMPOSITION/INFORMATION ON INGREDIENTS" and "4. FIRST-AID MEASURES."
- Serious eye damage / Eye irritation** : See the symptoms in "3. COMPOSITION/INFORMATION ON INGREDIENTS" and "4. FIRST-AID MEASURES."
- Respiratory sensitization or skin sensitizer** : See the symptoms in "3. COMPOSITION/INFORMATION ON INGREDIENTS" and "4. FIRST-AID MEASURES."
- Germ-cell mutagenicity** : See the symptoms in "3. COMPOSITION/INFORMATION ON INGREDIENTS" and "4. FIRST-AID MEASURES" and "15. REGULATORY INFORMATION - Chemical substance with mutagenicity noted."
- Carcinogenicity** : See the symptoms in "3. COMPOSITION/INFORMATION ON INGREDIENTS" and "4. FIRST-AID MEASURES" and "15. REGULATORY INFORMATION - Chemical substance with carcinogenicity noted."
- Reproductive toxicity** : See the symptoms in "3. COMPOSITION/INFORMATION ON INGREDIENTS" and "4. FIRST-AID MEASURES."
- Specific target organ /Single exposure** : See the symptoms in "3. COMPOSITION/INFORMATION ON INGREDIENTS" and "4. FIRST-AID MEASURES."
- Specific target organ /Repeated exposure** : See the symptoms in "3. COMPOSITION/INFORMATION ON INGREDIENTS" and "4. FIRST-AID MEASURES."
- Aspiration hazards** : See the symptoms in "3. COMPOSITION/INFORMATION ON INGREDIENTS" and "4. FIRST-AID MEASURES."

12. ECOLOGICAL INFORMATION

Ecotoxicity : There are no adverse effects on aquatic organisms.

Effects on wastewater treatment plant : There are no adverse effects of bacteria. More than 90% is removed by bond with sewage sludge. Siloxane in this product does not contribute to BOD.

Persistence/degradability : Siloxane is degraded in soil.

Bioaccumulation : There is no possibility of bioaccumulation.

Mobility in soil : Siloxane is removed from water by sedimentation or bond with sewage sludge.

13. DISPOSAL CONSIDERATIONS

Waste from residues : This product belongs to the industrial waste specified in Waste Management and Public Cleaning Act. Dispose of it in accordance with the related laws and regulations of local government.

Contaminated containers and packages

: Dispose of the product in accordance with the related laws and regulations of local government.

14. TRANSPORTATION INFORMATION

Domestic regulations : See Section 15.

International regulations

Maritime transport regulations : Not applicable for IMDG code

Air transport regulations : Not applicable for IATA code

15. REGULATORY INFORMATION

Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. : Not applicable.

Industrial safety and health act

Notifiable substances : Silic

Hazardous materials requiring notification : Not applicable

Ordinance on Prevention of Organic Solvent Poisoning : Not applicable

Ordinance on Prevention of Hazards Due to Specified Chemical Substances : Not applicable

Ordinance on Prevention of Lead Poisoning : Not applicable

Ordinance on Prevention of Tetraalkyl Lead Poisoning : Not applicable

Hazardous material : Not applicable

Substances for which manufacture, etc. are prevented : Not applicable

- Chemical substance with mutagenicity noted : Not applicable
- Chemical substance with carcinogenicity noted : Not applicable
- High Pressure Gas Safety Law** : Not applicable
- Fire Defense Law** : Specified flammable material, synthetic resin, etc. (3,000 kg)
- Poisonous and Deleterious Substances Control Law** : Not applicable
- Pollutant Release and Transfer Register(PRTR)Law** : Not applicable
- Marine Pollution and Marine Disaster Prevention Law** : Not categorized into marine pollution substances

List of existing chemical substances

- TSCA : All the chemical components in this product are included in the list of chemical substances in Toxic Substances Control Act (TSCA) or subject to the exclusion criteria.
- AICS : All the components are enrolled or subject to the exclusion criteria.
- DSL : All the components in this product are included in DSL or subject to the exclusion criteria.
- IECSC : All the components are enrolled or subject to the exclusion criteria.
- EINECS : All the components are enrolled or subject to the exclusion criteria.
- ENCs/ISHL : All the components are listed in Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. or Industrial Safety and Health Law, or subject to the exclusion criteria.
- KECL : All the components are listed, subject to the exclusion criteria, or notified.
- PICCS : All the components are enrolled or subject to the exclusion criteria.
- HSNO : All the components are enrolled or subject to the exclusion criteria.

16. OTHER INFORMATION

Reference:

Manufacturer-issued MSDS

Established on January 19, 1998

Revised on Dec 1, 2015

This document has been prepared based on the information and data that are available as of this date.

Therefore, it may be revised when new information or data has been obtained.

The information and data contained herein are subject to the normal use. The evaluation of dangerousness and toxicity is, therefore, not always applicable. For this reason, the safety precautions suitable for your purpose and method must be taken prior to the use.