



SAFETY DATA SHEET

1. Identification

Product identifier	Sil-Pad Products	
Other means of identification		
Product code	Sil-Pad 400, 600, 700, 800, 900S, 950, 980, 1000, 1000L, 1000ST, 1200, 1500, 1500ST, 1750, 1950, 2000, 9516, A1500, A2000, K4, K6, K10, With/without Polyimide, With/without fiberglass, With/without Adhesives AC, AAC, AC2, ACA, EAAC, TAC, TAAC	
Synonyms		
Recommended use	Thermally Conductive and Electrical Insulating Silicone Pad.	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier/Distributor information		
Company name	The Bergquist Company	
Address	18930 West 78th Street Chanhassen, MN. 55317	
Telephone	Non-Emergency calls:	1-800-347-4572
E-mail	M-SDSadmin@BergquistCompany.com	
Emergency phone number	Within USA and Canada:	1-800-424-9300
	Outside USA and Canada:	+1 703-527-3887 (Collect Calls Accepted)

2. Hazard(s) identification

Physical hazards	Not classified.
Health hazards	Not classified.
OSHA defined hazards	Not classified.
Label elements	
Hazard symbol	None.
Signal word	Not applicable.
Hazard statement	Not applicable.
Precautionary statement	
Prevention	Observe good industrial hygiene practices.
Response	Wash thoroughly after handling.
Storage	Store away from incompatible materials.
Disposal	Dispose of waste and residues in accordance with local authority requirements.
Hazard(s) not otherwise classified (HNOC)	None known.

3. Composition/information on ingredients

Mixtures	
Composition comments	The components are not hazardous or are below required disclosure limits.

4. First-aid measures

Inhalation	Move to fresh air. Get medical attention if symptoms occur.
Skin contact	Wash skin with soap and water. Get medical attention if irritation persists after washing.
Eye contact	Flush thoroughly with water. If irritation occurs, get medical assistance.
Ingestion	Rinse mouth thoroughly. Get medical attention if any discomfort occurs.
Most important symptoms/effects, acute and delayed	Under normal conditions of intended use, this material does not pose a risk to health.

Indication of immediate medical attention and special treatment needed

Treat symptomatically.

General information

Get medical attention if any discomfort develops.

5. Fire-fighting measures

Suitable extinguishing media

Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media

None known.

Specific hazards arising from the chemical

None.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.

Fire-fighting equipment/instructions

Move containers from fire area if you can do so without risk.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards

This product is not flammable.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Sweep up or gather material and place in appropriate container for disposal. For waste disposal, see section 13 of the SDS.

Environmental precautions

Environmental Manager must be informed of all major spillages.

7. Handling and storage

Precautions for safe handling

Provide adequate ventilation. Avoid inhalation of dust and contact with skin and eyes. Observe good industrial hygiene practices. Wear appropriate personal protective equipment (See Section 8).

Conditions for safe storage, including any incompatibilities

Store in closed original container in a dry place. Store away from incompatible materials.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Aluminum oxide (CAS 1344-28-1)	PEL	5 mg/m ³	Respirable fraction.
Barium sulphate (CAS 7727-43-7)	PEL	15 mg/m ³ 5 mg/m ³	Total dust. Respirable fraction.
Cobalt chromite blue green spinel (CAS 68187-11-1)	PEL	15 mg/m ³	Total dust.
Iron oxide (CAS 1309-37-1)	PEL	0.5 mg/m ³ 10 mg/m ³	

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Aluminum oxide (CAS 1344-28-1)	TWA	1 mg/m ³	Respirable fraction.
Barium sulphate (CAS 7727-43-7)	TWA	10 mg/m ³	
Iron oxide (CAS 1309-37-1)	TWA	5 mg/m ³	Respirable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Barium sulphate (CAS 7727-43-7)	TWA	5 mg/m ³	Respirable.

Components	Type	Value	Form
Cobalt chromite blue green spinel (CAS 68187-11-1)	TWA	10 mg/m ³ 0.5 mg/m ³	Total
Iron oxide (CAS 1309-37-1)	TWA	5 mg/m ³	Dust and fume.

Biological limit values**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
Cobalt chromite blue green spinel (CAS 68187-11-1)	15 µg/l	Cobalt	Urine	*
	1 µg/l	Cobalt	Blood	*

* - For sampling details, please see the source document.

Exposure guidelines

Follow standard monitoring procedures.

Appropriate engineering controls

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Individual protection measures, such as personal protective equipment

Eye/face protection Risk of contact: Wear approved safety goggles.

Skin protection

Hand protection Use suitable protective gloves if risk of skin contact. Suitable gloves can be recommended by the glove supplier.

Other If prolonged or repeated contact is likely, chemical resistant clothing is recommended.

Respiratory protection In case of inadequate ventilation, use respiratory protection.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned.

9. Physical and chemical properties**Appearance**

Solid.

Physical state

Solid.

Form

Solid.

Color

Various.

Odor

Slight.

Odor threshold

Not relevant.

pH

Not relevant.

Melting point/freezing point

Not relevant.

Initial boiling point and boiling range

Not relevant.

Flash point

Not relevant.

Evaporation rate

Not relevant.

Flammability (solid, gas)

Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not relevant.

Flammability limit - upper (%) Not relevant.

Explosive limit - lower (%) Not relevant.

Explosive limit - upper (%) Not relevant.

Vapor pressure

Not relevant.

Vapor density

Not relevant.

Solubility(ies)	
Solubility (water)	Not relevant.
Partition coefficient (n-octanol/water)	Not relevant.
Auto-ignition temperature	Not relevant.
Decomposition temperature	Not relevant.
Viscosity	Not relevant.
Other information	
Bulk density	Not available.
Density	1.50 - 3.20 (25 °C)
Explosive properties	Not relevant.
Oxidizing properties	Not relevant.
VOC (Weight %)	Not relevant.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	None.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Not likely, due to the form of the product.
Inhalation	Elevated temperatures or mechanical action may form dust and fumes which may be irritating to the mucous membranes and respiratory tract.
Skin contact	Prolonged skin contact may cause temporary irritation.
Eye contact	Elevated temperatures or mechanical action may form dust and fumes which may be irritating to the eye.
Symptoms related to the physical, chemical and toxicological characteristics	Under normal conditions of intended use, this material does not pose a risk to health.

Information on toxicological effects

Acute toxicity	Under normal conditions of intended use, this material does not pose a risk to health.
-----------------------	--

Components	Species	Test Results
Polyalkyl siloxane (CAS 63148-62-9)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	>= 5000 mg/kg
<i>Oral</i>		
LD50	Rat	>= 17000 mg/kg
Skin corrosion/irritation	Not classified.	
Serious eye damage/eye irritation	Not classified.	
Respiratory or skin sensitization		
Respiratory sensitization	Not classified.	
Skin sensitization	Not classified.	
Germ cell mutagenicity	Not classified.	
Carcinogenicity	Not classified.	

IARC Monographs. Overall Evaluation of Carcinogenicity

Iron oxide (CAS 1309-37-1)

3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity Not classified.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not classified.

Further information None known.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous.

Components	Species	Test Results
Barium sulphate (CAS 7727-43-7)		
Aquatic		
Crustacea	EC50	Tubificid worm (Tubifex tubifex)
		28.61 - 38.03 mg/l, 48 hours
Persistence and degradability	No data available.	
Bioaccumulative potential	No data available.	
Mobility in soil	The product is insoluble in water.	
Other adverse effects	None known.	

13. Disposal considerations

Disposal instructions	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.
Contaminated packaging	Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code This substance/mixture is not intended to be transported in bulk.

15. Regulatory information

US federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Barium sulphate (CAS 7727-43-7)

LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - No Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
--------------------------	--

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

US state regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US. Massachusetts RTK - Substance List

Aluminum oxide (CAS 1344-28-1)
Barium sulphate (CAS 7727-43-7)
Iron oxide (CAS 1309-37-1)

US. New Jersey Worker and Community Right-to-Know Act

Aluminum oxide (CAS 1344-28-1)
Barium sulphate (CAS 7727-43-7)
Iron oxide (CAS 1309-37-1)

US. Pennsylvania Worker and Community Right-to-Know Law

Aluminum oxide (CAS 1344-28-1)
Barium sulphate (CAS 7727-43-7)
Iron oxide (CAS 1309-37-1)

US. Rhode Island RTK

Aluminum oxide (CAS 1344-28-1)

US. California Proposition 65

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 01-July-2014
Revision date 11-July-2014
Version # 02
NFPA ratings



References
ESIS (European chemical Substances Information System)
Registry of Toxic Effects of Chemical Substances (RTECS)
HSDB® - Hazardous Substances Data Bank

Disclaimer
This Safety Data Sheet was prepared by a globally recognized, third party chemical, regulatory, and compliance information services provider for the Bergquist Company, Thermal Products Division / TIM, and is offered for your consideration and guidance when exposed to this product. The Bergquist Company disclaims all expressed or implied warranties and assumes no responsibility for the accuracy or completeness of the data contained herein. The data in this SDS does not apply to use with any other product or in any other process. This Safety Data Sheet may not be changed or altered in any way without the expressed knowledge and permission of The Bergquist Company.