

## Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Section 1 CHEMICAL PRODUCT SECTION

**1.1 Identification:** Product Name: Heat Sink Grease  
Product Number: 8699  
CAS#: Mixture (see section 3)

**1.2 Product description:** Conductive Grease  
**Product type:** Electric and electromechanical components - conductive materials, lubricants, greases, release products  
**Application:** Industrial applications

**1.3 Manufacturer:** ACL Incorporated  
840 W. 49<sup>th</sup> Place  
Chicago, IL 60609

PH: (01) 847.981.9212 [U.S.A.]  
FAX: (01) 847.981.9278 [U.S.A.]

Email of responsible party for SDS: [marykay@aclstaticide.com](mailto:marykay@aclstaticide.com)

**1.4 Emergency telephone:**  
US/Canada Emergency TEL: INFOTRAC: (01) 800.535.5053 (day or night)  
International Emergency TEL: INFOTRAC: 352.323.3500 (day or night)

### Section 2 HAZARDOUS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

Product definition: Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS] & (US) OSHA HCS 2012:

**PHYSICAL/CHEMICAL HAZARDS:** No hazard

**HUMAN HEALTH HAZARDS:** Serious Eye Irritation – Category 2A

**ENVIRONMENTAL HAZARDS:** No hazard

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

#### 2.2 Label elements

Hazard pictograms:



Signal word: Warning

Hazard statements: H319 – Causes serious eye irritation

#### Precautionary statements

##### **Prevention:**

P264 – Wash face, hands and any exposed skin thoroughly after handling.

P280 - Wear protective gloves/protective clothing/eye protection/face protection

##### **Response:**

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

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

**Precautionary Statements – Storage:** No hazard

**Precautionary Statements – Disposal:**

P501 Dispose of contents/container to comply with local, state and federal regulations. See section 13 for more information.

**2.3 Other Hazard:** None known

<b>Section 3</b>	<b>COMPOSITION / INFORMATION ON INGREDIENTS</b>
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**3.1 Substances**

CHEMICAL	C.A.S. Number	Weight %
Zinc Oxide	1314-13-2	30-70
Silicone Oil	63178-62-9	25-30
Silica	112945-52-5	0-2

<b>Section 4</b>	<b>FIRST AID MEASURES</b>
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**4.1.1 General Information:** Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**4.1.2 Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**4.1.3 Skin:** Wash off with soap and plenty of water. Consult a physician.

**4.1.4 Eyes:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**4.1.5 Ingestion:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**4.1.6 Self-protection of the first aider:** No action shall be taken involving any personal risk or without suitable training.

**4.2 Most important symptoms and effects, both acute and delayed:**

Potential acute health effects

Eye contact: No specific data

Inhalation: No specific data

Skin contact: No specific data

Ingestion: No specific data.

Over-exposure signs/symptoms

Eye contact: No specific data

Inhalation: No specific data

Skin contact: No specific data

Ingestion: No specific data

**4.3: Indication of any immediate medical attention and special treatment needed:** No data available

<b>Section 5</b>	<b>FIRE FIGHTING MEASURES</b>
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**5.1 Extinguishing Media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media: No specific data

**5.2 Specific hazards arising from substance or mixture** Zinc/Zinc oxides

**5.3 Advice from fire fighters:** Wear self-contained breathing apparatus for firefighting if necessary. Use water spray to cool unopened containers.

<b>Section 6</b>	<b>ACCIDENTAL RELEASE MEASURES</b>
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**6.1 Personal precautions, protective equipment and emergency procedures**

For non-emergency personnel: For personal protection see section 8.

For emergency responders: Use person protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

**6.2 Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**6.3 Methods and material or containment and cleaning up** Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

**6.3.1 For containment:** Deposit in sealed containers for disposal.

**6.3.2 For cleaning up** Stop spill/release if it can be done safely.

**6.3.3 Other information:** None

**6.4 Reference to other sections:** For personal protection, see Section 8

<b>Section 7</b>	<b>HANDLING AND STORAGE</b>
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**7.1 Precautions for safe handling:**

Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed. Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Normal measures for preventive fire protection. For precautions see section 2.

**7.2 Conditions for safe storage including incompatibilities:**

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep in a dry place.  
Storage class (TRGS 510): Non Combustible Solids

**7.3 Specific end use(s):** Apart from the uses mentioned in section 1, no other specific uses are stipulated.

<b>Section 8</b>	<b>EXPOSURE CONTROL / PERSONAL PROTECTION</b>
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**8.1 Control parameters**

Occupational exposure limits

ingredient name	CAS	Value	Control parameters	Basis
Zinc	1314-13-2	TWA	2.0 mg/m3	USA. ACGIH (TLV)
	Remarks	Metal fume fever		
		STEL	10 mg/m3	USA. ACGIH (TLV)
		TWA	5 mg/m3	USA. NIOSH Recommended Exposure Limits
		ST	10 mg/m3	USA. NIOSH Recommended Exposure Limits
		C	15 mg/m3	USA. NIOSH Recommended Exposure Limits
		TWA	5 mg/m3	USA. Occupational Exposure Limits (OSHA) – Table Z-1 Limits for Air Contaminants

		PEL	5 mg/3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
		STEL	10 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
<b>Pyrogenic colloidal silica</b>	112945-52-5	TWA	20 million particles / cubit ft	USA. Occupational Exposure Limits (OSHA) – Table Z-3 Mineral Dusts
	Remarks	Based on impinger samples counted by light-field techniques Mppcf X 35.3 = million particles per cubic meter = particles per c.c		
		TWA	80 mg/m3 3 / %SIO2	USA. Occupational Exposure Limits (OSHA) – Table Z-3 Mineral Dusts
		TWA	6 mg/m3	USA. NIOSH Recommended Exposure Limits
		PEL	6 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)

**Recommended monitoring procedures:** Not established

**DNELs/DMELs:** No DNELs/DMELs available.

**PNECs:** No PNECs available

**8.2 Exposure controls:**

**8.2.1 Appropriate engineering controls** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

**8.2.2 Personal protective equipment** Ensure the safety showers are proximal to the work-station location. Wear lab coat.

**8.2.2.1 Eye and face protection** Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**8.2.2.2 Skin protection** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without toughing glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact

Material: Nitrile-rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril ®

Splash contact

Material: Nitrile-rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril ® P

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

**Body protection**

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

**8.2.2.3 Respiratory protection** Respiratory protection is not required. Where protection from nuisance levels of dust are desired, use type N95 (US) or type P1 (EN 143) dust masks. Where risk assessment shows air-purifying respirators are appropriate, use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole

means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**8.2.2.4 Thermal hazards:** Not determined

**Control of environmental exposure:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**In case of large spill:** Not determined

<b>Section 9</b>	<b>PHYSICAL AND CHEMICAL PROPERTIES</b>
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**9.1 Physical properties**

Appearance: Physical Form Color	liquid Grease White
Odor	No data
pH	No data
Melting point/freezing point	No data
Initial boiling point and boiling range	> 140°C (> 284°F) @ 0.003 hPa (0.002 mmHg) - lit
Flash point and method	No data
Evaporation rate	Slower (relative to n-Butyl Acetate)
Flammability (solid, gas, liquid)	No data
Upper/lower flammability or explosive limits	No data
Vapor pressure	< 7 hPa (< 5 mmHg) @ 25°C (77°F)
Vapor density (air=1)	No data
Relative density	No data
Solubility in water @25C	Insoluble
Partition coefficient: n-octanol/water	No data
Autoignition temperature	No data
Decomposition temperature	No data
Viscosity	No data
Volatile by weight	No data

**9.2 Other safety information**

Density	No data
VOC	No data
VOC Actual (g/l)	No data
VOC Density	No data

<b>Section 10</b>	<b>STABILITY AND REACTIVITY</b>
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**10.1 Reactivity:** Material is stable at standard temperature and pressure.

**10.2 Chemical stability:** Stable under recommended storage conditions

**10.3 Possibility of hazardous reactions:** None under normal conditions.

**10.4 Conditions to avoid:** Exposure to moisture may affect product quality

**10.5 Incompatible materials:** Strong oxidizing agents, acids, bases, Hydrogen fluoride, Ammonia, Oxygen difluoride, Chlorine trifluoride

**10.6 Hazardous decomposition products:** Hazardous decomposition products formed under fire conditions – Zinc/zinc oxides, Carbon oxides, silicon oxides

Other decomposition products - No data available.

In the event of fire: see section 5.

<b>Section 11</b>	<b>TOXICOLOGY INFORMATION</b>
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**11.1 Information on toxicological effects**

**Acute toxicity**

Chemical	Result	Species	Dose	Exposure
Zinc oxide	LD50 Oral	Mouse	7950 mg/kg	---
	LC50 Inhalation	Mouse	2500 mg/m3	---

**Conclusion/Summary :** Not available

**Irritation/Corrosion:**

Chemical	Result	Species	Dose	Exposure
Zinc oxide	Skin – Mild irritation	Rabbit	---	24 hours
	Eyes – Mild irritation	Rabbit	---	24 hours
Silicone oil	Skin – Mild irritation	Rabbit	---	24 hours
	Eyes – Mild irritation	Rabbit	---	24 hours

**Conclusion/Summary:** Not available

**Sensitizer**

**Conclusion/Summary:** Not available

**Carcinogenicity**

Carcinogenicity - Rat - Inhalation

Tumorigenic: Carcinogenic by RTECS criteria. Lungs, Thorax, or Respiration: Tumors. (Silica)

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP or EPA classification. (Silica)

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, ACGIH, NTP, OSHA.

**Mutagenicity:** Not available

**Teratogenicity:** Not available

**Reproductive Toxicity:** Not available

**Additional Information:** Zinc oxide dust or fume can irritate the respiratory tract. Prolonged skin contact can produce a severe dermatitis called oxide pox. Exposure to high levels of dust or fume can cause metallic taste, marked thirst, coughing, fatigue, weakness, muscular pain and nausea followed by fever and chills. Severe overexposure may result in bronchitis or pneumonia with a bluish tint to the skin. Prolonged or repeated exposure can cause: Reversible liver enzyme abnormalities and/or diarrhea. Stomach – Irregularities – Based on Human Evidence

**\* To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.**

<b>Section 12</b>	<b>ECOLOGICAL INFORMATION</b>
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**12.1 Toxicity**

Chemical	Result	Species	Exposure
Zinc oxide	LC50 – 1.1 mg/l	Oncorhynchus mykiss (rainbow trout)	96 hours
	EC50 – 0.098 mg/l	Daphnia magna (water flea)	48 hours
	EC50 - > 1,000 mg/l	Daphnia magna (water flea)	48 hours

**Conclusion/Summary :** No Data Available

**12.2 Persistence and degradability:** Not available

**12.3 Bioaccumulative potential:** Not available

**12.4 Mobility in soil:**

**Soil/water partition coefficient (KOC):** Not available.

**Mobility:** Not available.

**12.5 Results of PBT and vPvB assessment:** PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

**12.6 Other adverse effects:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effect.

<b>Section 13</b>	<b>DISPOSAL CONSIDERATIONS</b>
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The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**13.1 Waste treatment methods**

**13.1.1 Product / Packing Disposal**

Product

**Methods of disposal:** Offer surplus and non-recyclable solutions to a licensed disposal company. Waste packaging should be recycled. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

**Hazardous waste:** Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state and local laws.

Contaminated Packaging

**Methods of disposal:** Dispose of as unused product.

**13.1.2 Waste treatment-relevant information:** Contact a licensed professional waste disposal service to dispose of this material. The generation of waste should be avoided or minimized whenever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

**13.1.3 Sewage disposal-relevant information:** Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**13.1.4 Other disposal recommendations:** Federal, State, and Local laws governing disposal of material can differ. Ensure proper disposal compliance with proper authorities before disposal.

<b>Section 14</b>	<b>TRANSPORTATION INFORMATION</b>
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	<b>Proper Shipping Name</b>	<b>Hazard Class</b>	<b>UN number</b>	<b>NOTE</b>
<b>US DOT ground</b>	Non Hazardous Material	NA	NA	
<b>US DOT air</b>	Non Hazardous Material	NA	NA	
<b>IATA</b>	Non Hazardous Material	NA	NA	
<b>IMDG</b>	Non Hazardous Material	NA	NA	

<b>Section 15</b>	<b>REGULATORY INFORMATION</b>
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United States Federal Regulations: SDS complies with the OSHA, 29 CFR 1910.1200.

**SARA 302 Components**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

The following components are subject to reporting levels established by SARA Title III, Section 313:

Zinc oxide - CAS-No. 1314-13-2

**SARA 311/312 Hazards:** Chronic Health Hazard

Toxic Substance Control Act (TSCA): **All substances are TSCA listed.** Resource Conservation and Recovery Act (RCRA 40 CFR 261) Subpart C & D: **Refer to Section 13 for RCRA classification.**

STATE REGULATIONS:

The following chemicals are specifically listed by individual state; other product specific health and safety data in other sections of the SDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state

CHEMICAL	C.A.S. Number	States
Zinc Oxide	1314-13-2	MA
Silicone Oil	63148-62-9	MA, PA, NJ
Pyrogenic colloidal silica	112945-52-5	MA, PA, NJ

California Proposition 65: This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

INTERNATIONAL REGULATIONS:

**Canada WHMIS:** This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all the information required by the CPR.

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

To the best of our ability, this SDS is written in accordance to REACH Directive EC1907/2006 Annex II and GHS requirements. This product is not subject to REACH restrictions under Annex XVII. This product does not contain a substance identified as a SvHC candidate.

CHEMICAL	C.A.S. Number	Annex XVII	SvHC
Zinc Oxide	1314-13-2	Not listed	Not listed
Silicone Oil	63148-62-9	Not listed	Not listed
Pyrogenic colloidal silica	112945-52-5	Not listed	Not listed

**15.2 Chemical Safety Assessment:** No chemical safety assessment has been carried out

<b>Sections 16</b>	<b>OTHER INFORMATION</b>
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HMIS HAZARD RATING: (1) Fire (0) Health (0) Reactivity (B) Protective Equipment

REVISION DATES, SECTIONS, REVISED BY:

24-May-19 Original Preparer: Mary Kay Botkins

ABBREVIATIONS USED IN THIS DOCUMENT:

NE – Not Established, NA – Not Applicable, NIF – No Information Found, ND – Not Determined

ABRIDGED LIST OF REFERENCES:

- Code of Federal Regulations (CFR)
- The Sigma-Aldrich Library of Regulatory and Safety Data
- Chemical Guide and OSHA Hazardous Communication Standard
- The Environmental Protection Agency ([www.epa.gov](http://www.epa.gov))
- [http://oehha.ca.gov/prop65/prop65\\_list](http://oehha.ca.gov/prop65/prop65_list)
- <http://orise.orau.gov/emi/hazards-assessment/files/resources/epa-title3.pdf>
- <https://echa.europa.eu/home>

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