E3D Thermal Paste
Material Safety Data Sheet

Last Revision Date: 2011/05/01
Version No.: GHS 1.0

WT180 HEAT SINK COMPOUND

1. IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

1.1	**Product Name:**	WT180 HEAT SINK COMPOUND
1.2	**Product Code:**	WT180
1.3	**Chemical Classification:**	Silicone compound
1.4	**Recommended Product Usage and Limited Use:**	Lubricant
1.5	**Company Details**	
	Manufacturer/Supplier:	Shenzhen Gdstime Technology Co.,LTD
	Address:	602,1B Hubei Industrial Zone,Buji Town,Longgang Area, Shenzhen.
	Telephone Number:	0755-28261185 **Fax Number:** 0755-28261185
	Email Address:	
	Emergency Telephone Number:	0755-28261185
1.6	**First Issuing Date:**	2011/05/01
1.7	**Chemical Emergency, Spill, Leak & Fire Exposure during Transport:**	0755-28261185

2. HAZARD IDENTIFICATION

2.1 Hazard Classification: Acute aquatic hazard: Category 1
Chronic aquatic hazard: Category 1

2.2 Label Elements Including Precautionary Statements

Symbol:

Signal Word: Warning

Hazard Risk Statement:
Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

Precautionary Statement:
Avoid contact with skin and eyes.
Avoid release to the environment.
In case of fire and/or explosion do not breathe fumes.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF ON SKIN: Wash with plenty of soap and water.
Collect spillage.
Dispose of in accordance with local regulations.

2.3 Other Hazard: None known.

WT180 HEAT SINK COMPOUND

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Chemical characterization: Mixture

3.2 Hazardous Ingredients

Chemical Name	CAS No.	% (w/w)
Zinc oxide	1314-13-2	>60

4. FIRST AID MEASURES

4.1 First Aid Measures

Eyes: Immediately flush with water.
Skin: No first aid should be needed.
Inhalation: No first aid should be needed.
Oral: Get medical attention.
Comments: Treat symptomatically.

4.2 Important Symptoms and Hazard Effects: No significant adverse effects from normal use.

4.3 Personal Protection for First Aid or Rescue Personnel

Respiratory Protection: No respiratory protection should be needed.
Eye Protection: Use proper protection - safety glasses as a minimum.
Skin Protection: Washing at mealtime and end of shift is adequate.

4.4 Note to physicians: Treat symptomatically. For further information, the medical practitioner should contact Dow Corning (Shanghai) Management Co., Ltd.

5. FIRE-FIGHTING MEASURES

5.1 Suitable Extinguishing Media: On large fires use dry chemical, foam or water spray. On small fires use carbon dioxide (CO2), dry chemical or water spray. Water can be used to cool fire exposed containers.

5.2 Unsuitable Extinguishing Media: None established.

5.3 Specific Hazards: None.

5.4 Special Fire Fighting Procedures: Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.

5.5 Special protective equipment for the Fire Fighters: Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals.

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6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions: Avoid eye contact. Do not take internally.

6.2 Environmental Precautions: Prevent from spreading or entering into drains, ditches or rivers by using sand, earth or other appropriate barriers.

6.3 Methods for Cleaning up: Observe all personal protective equipment recommendations described in this MSDS. If diked material can be pumped, store recovered material in appropriate container. Wipe up or scrape up and contain for salvage or disposal. Clean area as appropriate since spilled materials, even in small quantities, may present a slip hazard. Final cleaning may require use of steam, solvents or detergents. Dispose of saturated absorbant or cleaning materials appropriately, since spontaneous heating may occur. Laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which laws and regulations are applicable.

7. HANDLING AND STORAGE

7.1 Handling Precautions: Use with adequate ventilation. Avoid eye contact. Do not take internally. Exercise good industrial hygiene practice. Wash after handling, especially before eating, drinking or smoking.

7.2 Storage Conditions: Use reasonable care and store away from oxidizing materials.

7.3 Unsuitable Packaging Materials: None established.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Industrial Hygiene Standards:

Ingredients	CAS No.	Exposure Limits
Zinc oxide	1314-13-2	China: TWA 3 mg/m3. STEL 5 mg/m3. OSHA PEL (final rule) (fume): TWA 5 mg/m3, STEL 10 mg/m3. OSHA PEL (final rule) (dust): TWA 10 mg/m3 total dust, 5 mg/m3 respirable fraction. ACGIH TLV: TWA 2 mg/m3 respirable fraction, STEL 10 mg/m3 respirable fraction.

8.2 Engineering Controls

Local Ventilation: None should be needed.
General Ventilation: Recommended.

8.3 Personal Protective Equipment for Routine Handling

Respiratory protection: No respiratory protection should be needed.
Suitable Respirator: None should be needed.
Eye protection: Use proper protection - safety glasses as a minimum.
Hand protection: No special protection needed.
Skin protection: Washing at mealtime and end of shift is adequate.

	Hygiene Measures:	Exercise good industrial hygiene practice. Wash after handling, especially before eating, drinking or smoking.

8.4 Personal Protective Equipment for Spills

Respiratory protection:	No respiratory protection should be needed.
Eye protection:	Use proper protection - safety glasses as a minimum.
Skin protection:	Washing at mealtime and end of shift is adequate.
Precautionary Measures:	Avoid eye contact. Do not take internally. Use reasonable care.

Note: These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1	**Physical Form:**	Paste
9.2	**Color:**	White
9.3	**Odor:**	Odorless
9.4	**pH:**	Not determined.
9.5	**Melting Point:**	Not determined.
9.6	**Boiling point/range:**	Not determined.
9.7	**Flash Point:**	> 101 °C(Closed Cup)
9.8	**Explosive Limit:**	Not determined.
9.9	**Vapor Pressure @ 25°C:**	Not determined.
9.10	**Vapour Density (air=1):**	Not determined.
9.11	**Specific Gravity:**	2.0 g/cm3
9.12	**Water Solubility:**	Water Solubility 0 g/l
9.13	**Partition Coefficient (n-Octanol/Water):**	Not determined.
9.14	**Autoignition temperature:**	Not determined.
9.15	**Decomposition Temperature :**	Not determined.
9.16	**Odor Threshold:**	Not determined.
9.17	**Evaporation Rate:**	Not determined.
9.18	**Flammability (Solid, Gas):**	Not applicable.

10. STABILITY AND REACTIVITY

10.1	**Stability:**	Stable.
10.2	**Possibility of Hazardous Reactions:**	Hazardous polymerization will not occur.
10.3	**Conditions to Avoid:**	None.
10.4	**Materials to Avoid:**	Can react with strong oxidising agents.
10.5	**Hazardous Decomposition Products:**	Silicon dioxide. Carbon oxides and traces of incompletely burned carbon compounds. Formaldehyde. Metal oxides.

11. TOXICOLOGICAL INFORMATION

11.1 Route of Exposure: Skin contact and accidental ingestion.

11.2 Signs and Symptoms of Overexposure: No significant adverse effects from normal use.

11.3 Acute Toxicity:

Chemical Name	CAS No.	LD50 (Oral)	LD50 (Dermal)	LC50 (Inhalation)
Zinc oxide	1314-13-2	> 5,000 mg/kg (Rat)	-	-

Eyes: Direct contact may cause temporary redness and discomfort.
Skin: No significant irritation expected from a single short-term exposure.
Ingestion: Low ingestion hazard in normal use.
Inhalation: No significant effects expected from a single short-term exposure.

11.4 Chronic Toxicity

Skin: No known applicable information.
Ingestion: Repeated ingestion or swallowing large amounts may injure internally.
Inhalation: No known applicable information.

11.5 Other Health Hazard Information: Inhalation of fumes may result in metal fume fever, a flu-like illness with symptoms of metallic taste, fever and chills, aches, chest tightness, and cough.

12. ECOLOGICAL INFORMATION

12.1 Aquatic and Terrestrial Ecotoxicity

Ecotoxicity Effects:

Acute: Very toxic to aquatic life. However, due to the physical form and water-insolubility of the product the bioavailability is negligible.

Chronic: Very toxic to aquatic life with long lasting effects. However, due to the physical form and

		water-insolubility of the product the bioavailability is negligible.
	Fate and Effects in Waste Water Treatment Plants:	No adverse effects on bacteria are predicted.
12.2	**Persistence and Degradability**	
	Water:	Solid material, insoluble in water.
12.3	**Bioaccumulative Potential**	
	Bioaccumulation:	No bioaccumulation potential. This product is a solid which is not soluble in water and if ingested will not be absorbed.
12.4	**Mobility in Soil:**	This product is a solid and does not contain significant concentrations of water soluble constituents that may be leached from the product. It is therefore not likely to present a danger to terrestrial organisms.
12.5	**Additional Environmental Information:**	No specific information is available.

13. DISPOSAL CONSIDERATIONS

13.1	**Product Disposal:**	This material must be disposed of as hazardous waste.
13.2	**Packaging Disposal:**	Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION

14.1 **Road and Rail Transport**

UN No.:	3077
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Technical Name:	Zinc Oxide
Class:	9
Packing Group:	III
Hazard Label(s):	Miscellaneous articles and substances

14.2 **Sea Transport (IMDG)**

UN No.:	3077
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Technical Name:	Zinc Oxide
Class:	9
Packing Group:	III
Marine Pollutant (Yes/No):	Yes, Zinc Oxide
Hazard Label(s):	miscellaneous

14.3 **Air Transport (IATA)**

UN No.:	3077
Proper Shipping Name:	Environmentally hazardous substance, solid, n.o.s.

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	Technical Name:	Zinc Oxide
	Class:	9
	Packing Group:	III
	Hazard Label(s):	Miscellaneous dangerous goods Apply Gross Wt Supplemental Label to Outer Package if shipping Limited Quantity
14.4	**Special Requirements and Additional Information :**	None.

15. REGULATORY INFORMATION

15.1	**Applicable Laws:**	Provisions of the Regulations for the Safe Handling of Chemicals in the Workplace The Regulations for Safe Management of Dangerous Chemicals (promulgated by the PRC Government on 1-2-2002.) Code of Practice for Safe Management of Dangerous Chemicals (Ministry of Labor, No.677-1992). General rule for classification and hazard communication of chemicals [GB 13690-2009]
15.2	**Chemical Inventories**	
	ENCS/ISHL:	All components are listed on ENCS/ISHL or its exempt rule.
	PICCS:	All ingredients listed or exempt.
	TSCA:	All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.
	KECL:	All ingredients listed, exempt or notified.
	AICS:	All ingredients listed or exempt.
	DSL:	All chemical substances in this material are included on or exempted from the DSL.
	EINECS:	All ingredients listed or exempt.
	IECSC:	All ingredients listed or exempt.
	HSNO:	All ingredients listed or exempt.

16. OTHER INFORMATION

16.1	**Contact Point:**	Technical Information Center 400 880 7110
16.2	**Prepared by:**	Shenzhen Huitianxin Technology Co.,LTD

Legend:

- No specific information available

This information is offered in good faith as typical values and not as a product specification. No warranty, expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.