SAFETY DATA SHEET

HEAT SINK COMPOUND

Version:	Revision Date:	MSDS Number:	Date Completed:
3.0	01/2015	GHS – 15030 – HSC	09/2015

SECTION 1. IDENTIFICATION

Product Name: Heat Sink Compound

Manufacturer or supplier's details

Company name of supplier: JIT Silicones Plus

Address: 5 Industrial Park Drive
Oakdale, PA 15071

Telephone: 855-548-7587

Emergency Telephone: 24 Hour Emergency Telephone:
CHEMTREC: (800) 424-9300

Recommended use of the chemical and restrictions on use

Recommended use: Lubricant (not for medical purposes)

SECTION 2. HAZARDS IDENTIFICATION

Classification: Environmentally hazardous.

Labeling:

Signal Word: Warning

Hazard Statement: H410 – Very toxic to aquatic life with long lasting effects.

Precautionary Statements: Use personal protective equipment as required.
Wear safety glasses and gloves.
Non-flammable or combustible, but may burn if involved in a fire.
P273 – Avoid release to the environment.
P391 – Collect spillage.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Identify:	Common Name:	CAS-No.	Impurities:
Dimethyl siloxanes and silicones, 25-35%	Methyl silicone	63148-62-9	No information provided by manufacturer.
Zinc oxide65-75%	None	1314-13-2	No greater than 0.1%, not classifiable.

SECTION 4. FIRST AID MEASURES

In case of eye contact:	Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention. Obtain medical attention.
In case of skin contact:	Wash affected area with soap and water. If signs/symptoms persist, get medical attention. No need for first aid is anticipated.
In case of inhalation:	If signs/symptoms develop, remove person to fresh air. If signs/symptoms persist, get medical attention.
In case of ingestion:	If swallowed, do not induce vomiting. If irritation or discomfort occurs, obtain medical assistance.

SECTION 5. FIRE-FIGHTING MEASURES

Autoignition Temperature:	>300° C
Flash Point:	>300° C
Flammable Limits (LEL):	Not determined
Flammable Limits (UEL):	Not determined
Suitable extinguishing media:	On large fires use dry chemical, foam, or water spray. On small fires use carbon dioxide, dry chemical, or water spray. Water can be used to cool fire exposed containers.
Unsuitable extinguishing media:	None.
Specific hazards in case of fire:	Decomposes on heating and can release formaldehyde. Avoid reaction with oxidizers. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterways, sewer, or drain.
Special protective equipment and precautions for fire fighters:	No acute hazard. Move container from fire area, if possible. Avoid breathing vapors or dusts. Keep upwind. Use full firefighting gear (bunker gear). Any supplied-air respirator with full face piece and operated in a pressure-demand or other positive pressure mode in combination with a separate escape air supply. Use any self-contained breathing apparatus with a full face piece.

Alert fire brigade and indicate hazard location. Wear breathing apparatus plus protective clothing. Cool fire exposed containers with water spray from a protected location. Do not approach containers suspected to be hot. If safe to do so, remove containers from path of fire.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Use appropriate personal protection. (See Section 8.)

Environmental precautions: For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Collect the resulting residue containing solution. Place in a metal container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

Methods and materials for containment and cleaning up: Observe precautions from other sections. Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible. Clean up residue with an appropriate solvent. Seal the container..

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling: Avoid contact with skin, inhalation of mist, or ingestion. See Section 8 for personal protection equipment. Practice good personal hygiene to prevent accidental ingestion after handling. Properly dispose of clothing that cannot be decontaminated.

Conditions for safe storage, including any incompatibilities: Store away from oxidizing materials. Store product in a closed container located in a dry area. Do not store in open, inadequate, or mislabeled packaging. Check that containers are clearly labeled. Use metal cans, metal drums, plastic, or lined fiber containers. Keep away from heat and flame.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters: Under most handling conditions, this product will not generate mist or dust.

Engineering Controls: In most conditions, no special local ventilation is needed. General ventilation recommended. If the product is heated above 150° C or atomized ventilation should be used.

Personal protective equipment (PPE):

Eyes:	Safety glasses recommended.
Skin:	Impermeable gloves should be worn. Product is compatible with most elastomers.
Inhalation:	No respiratory protection required under most conditions. If concentrations exceed exposure limits, approved respiratory equipment must be used.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Solid. Liquid may separate from product.
Color:	White
Odor:	Nearly odorless
Odor Threshold:	Not available
pH Value:	Not applicable
Melting Point:	Decomposes
Freezing Point:	Becomes very stiff with decreasing temperature around -50° C.
Initial boiling point:	>200° C
Flash point:	>300°C COC (Base oil) Method: closed cup
Evaporation rate:	Not available
Flammability (solid, gas):	Not applicable
Explosion limit:	Not available
Vapor pressure:	Negligible at 20°C
Vapor density:	Not available
Solubility:	Insoluble in water at 20°C
Partition coefficient:	Not available
Auto-ignition temperature:	Not available

Decomposition temperature: Begins to decompose at 150°C.

SECTION 10. STABILITY AND REACTIVITY

Chemical stability: Stable under ambient temperatures and pressures.

Possibility of hazardous reactions: May react with aire under bery high pressure. Otherwise will not react or polymerize.

Conditions to avoid: No specific conditions to avoid have been identified.

Materials to avoid: Oxidizers, flax oil, magnesium, strong bases and acids. Chlorinated rubber can have a violent reaction at temperatures above 215°C with this product.

Hazardous decomposition products: Decomposes on heating and produces formaldehyde, silicone dioxide, and incompletely burned carbon compounds.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity Not toxic. LD50 (rat) > 10,000 mg/kg (dimethyl silicone)

Skin corrosion/irritation: Not irritating / not corrosive to the skin. LD50 (rabbit) >2,000 mg/kg (dimethyl silicone)

Serious eye damage/irritation: Possible irritant / not corrosive to the eyes.

Respiratory or skin sensitization: Not sensitizing to the skin.

Germ-cell mutagenicity: Not a germ cell mutagen.

Carcinogenicity: Not a carcinogen.

Reproductive toxicity: There are currently no reliable scientific data available indicating adverse effects on reproduction or fertility.

Aspiration hazard: Not applicable (not an aerosol/mist).

SECTION 12. ECOLOGICAL INFORMATION

Toxicity:

Dimethyl silicone:	Invertebrates: Daphnia magna 48h-LC50 > 10,000 mg/L
Zinc oxide:	Invertebrates: Daphnia magna 48h-LC50 98 ug/L Algae: Pseudokirchneriella subcapitata 72h-EC50 42 ug/L Algae: Pseudokirchneriella subcapitata 72h Chronic NOEC 17 ug/L Fish: Lepomis macrochirus 96h-LC50 320 ppm
Persistence and degradability:	In soil, siloxanes are degraded.
Bioaccumulative potential:	Zinc oxide has a high bioaccumulative potential. BCF 60960
Mobility in soil:	Siloxanes are removed from water by sedimentation or binding to sewage sludge. Zinc oxide is not mobile.

SECTION 13. DISPOSAL PROCEDURES

Waste treatment methods:	Waste (substance and container material) shall be recycled/recovered or disposed of as applicable and in accordance with community (EU) and local legislation. Recycle wherever possible. Consult state land waste management authority for disposal. Bury at an approved site. Recycle containers if possible, or dispose of in an authorized landfill.
According to the European Waste Catalogue:	Waste Codes are not product specific but application specific. Waste Codes should be assigned by the user based on the application in which the product is used.
For USA Disposal:	Waste must be disposed of in accordance with federal, state, and local environmental control regulations.

SECTION 14. TRANSPORT INFORMATION

Class or Type:	Class 9. Packing group III. UN3077 Environmentally hazardous substance, solid N>O>S> (Zinc oxide). This environmentally hazardous substance mark is not required when transported in sizes less than 5L or 5kg.

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the mixture.

Other Information:

U.S. Regulatory Information

TSCA Inventory Status:	All ingredients listed or exempt.
TSCA 12 (b) Export Notification:	Not listed
CERCLA Section 103 (40 CFR 302.4):	N
SARA Section 302 (40 CFR 355.30):	N
SARA Section 304 (40 CFR 355.40):	N
SARA Section 313 (40 CFR 372.65):	Zinc oxide
OSHA Process Safety (29 CFR 1910.119):	N
SARA Hazard Categories, SARA Sections 311/312 (40 CFR 370.21) –	
Acute Hazard:	N
Chronic Hazard:	N
Fire Hazard:	N
Reactivity Hazard:	N
Sudden Release Hazard:	N

State Regulations: Not on California Proposition 65 list. Does not contain any contaminants or by-products known to the State of California to cause cancer or reproductive toxicity.

Note – There are no known safety, health or environmental restrictions or prohibitions in any country where this product is produced, imported or marketed.

Chemical Inventories:

DSL (Canada)	All ingredients listed or exempt.
EINECS (European Union)	All ingredients listed or exempt.
ENCS/ISHL (Japan)	All ingredients listed or exempt.
IECSC (Peoples Republic of China)	All ingredients listed or exempt.
TSCA (United States of America)	All ingredients listed or exempt.

SECTION 16. OTHER INFORMATION

NFPA Hazard Classification:

Health	1
Flammability:	1
Reactivity:	0
Special Hazards:	None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency personnel to address the hazards that are presented by short-term, acute exposure to material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

HMIS Hazard Classification:

Health	1
Flammability:	1
Reactivity:	0
Special Hazards:	B (See PPE Section)

Hazardous Material Identification System (HMIS) hazard ratings are designed to inform employees of chemical hazards in the workplace. The ratings are based on inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations...

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

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