



MATERIAL SAFETY DATA SHEET

Date Issued: 05/16/2005
MSDS No: 1978
Date Revised: 11/16/2011
Revision No: 5

Silicone-free Heat Sink Compound

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Silicone-free Heat Sink Compound
PRODUCT DESCRIPTION: Silicone-free Heat Sink Compound
PRODUCT CODE: 1978-1, 1978-DP

MANUFACTURER

Techspray, L.P.
1001 N.W. 1st Street
P.O. Box 949
Amarillo, TX 79107
Emergency Contact: Chemtrec
Emergency Phone: 1-800-858-4043
Service Number: 1-800-858-4043

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC CCN#21858 (US Transportation) :(800) 424 - 9300
CANUTEC (Canadian Transportation) :(613) 996 - 6666
Emergency Phone :(800) 858 - 4043

2. HAZARDS IDENTIFICATION

HAZARD DESIGNATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Odorless white paste

POTENTIAL HEALTH EFFECTS

EYES: Avoid contact with eyes; may cause redness, irritation and conjunctivitis.

SKIN: Prolonged or repeated contact may cause skin irritation.

SKIN ABSORPTION: None Expected.

INGESTION: Not yet Determined

INHALATION: Not yet Determined

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Symptoms of overexposure include: stinging, tearing, redness and pain.

SKIN: Prolonged or exposure may cause skin irritation.

SKIN ABSORPTION: None Expected.

INGESTION: Ingestion may result in diarrhea and/or nausea.

INHALATION: None Expected.

ACUTE TOXICITY: Low hazard for usual industrial or commercial handling.

CHRONIC EFFECTS: Frequent or prolonged contact may irritate the skin and cause a skin rash (dermatitis).

CARCINOGENICITY: NOT listed

MUTAGENICITY: Not yet Determined

REPRODUCTIVE TOXICITY

REPRODUCTIVE EFFECTS: NOT listed

TERATOGENIC EFFECTS: Not yet Determined

CANCER STATEMENT: NOT listed

COMMENTS: Zinc oxide component (USP) is in paste form and does not exhibit a dust hazard.



MATERIAL SAFETY DATA SHEET

Date Issued: 05/16/2005
MSDS No: 1978
Date Revised: 11/16/2011
Revision No: 5

Silicone-free Heat Sink Compound

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt. %	CAS
Zinc oxide	< 70	1314-13-2
NJ Trade Secret Reg. #00840600-5000P	15 - 20	
NJ Trade Secret Reg. #00840600-5001P	10 - 15	
NJ Trade Secret Reg. #00840600-5002P	3 - 5	

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.

SKIN: Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

INGESTION: If swallowed, do not induce vomiting. If conscious and alert, give two glasses of water. Seek medical attention.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: 296°C (565°F)

FLAMMABLE LIMITS: Not Determined to Not Determined

AUTOIGNITION TEMPERATURE: Not Available

EXTINGUISHING MEDIA: Water, foam, dry chemical, carbon dioxide.

EXPLOSION HAZARDS: None Expected.

FIRE FIGHTING PROCEDURES: Evacuate area and fight fire from a safe distance.

FIRE FIGHTING EQUIPMENT: As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective gear.

HAZARDOUS DECOMPOSITION PRODUCTS: None Expected.

6. ACCIDENTAL RELEASE MEASURES

LARGE SPILL: Clean up spills immediately, observing precautions in Protective Equipment section.

GENERAL PROCEDURES: Vacuum or sweep up material and place in a disposal container.

RELEASE NOTES: Spills and releases may have to be reported to Federal and/or local authorities.

SPECIAL PROTECTIVE EQUIPMENT: Only personnel equipped with proper respiratory and skin/eye protection should be permitted in area. See Section 8 for details.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Wash thoroughly after handling. Use only in a well ventilated area. Follow all MSDS/label precautions even after container is emptied because they may retain product residues. Store in a cool dry place.

STORAGE TEMPERATURE: Store in adequate storage area at ambient temp.



MATERIAL SAFETY DATA SHEET

Date Issued: 05/16/2005
MSDS No: 1978
Date Revised: 11/16/2011
Revision No: 5

Silicone-free Heat Sink Compound

STORAGE PRESSURE: Store at local atmospheric pressure.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

SKIN: Not Applicable

RESPIRATORY: Not Applicable

WORK HYGIENIC PRACTICES: Avoid contact with eyes. Avoid fume inhalation. Limit skin contact.

OTHER USE PRECAUTIONS: Emergency shower and eyewash facility should be in close proximity.

COMMENTS: This material is in paste form; zinc oxide does not pose a dust hazard.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Semisolid

ODOR: None

APPEARANCE: Gray Solid with low odor

pH: NA = Not Applicable

PERCENT VOLATILE: Not Established

VAPOR PRESSURE: < 0.1 mmHg

VAPOR DENSITY: Not Applicable

BOILING POINT: > 204°C (400°F)

FREEZING POINT: Not Applicable

FLASHPOINT AND METHOD: 296°C (565°F)

SOLUBILITY IN WATER: Insoluble

EVAPORATION RATE: < 0.01 (n-Butyl Acetate=1)

SPECIFIC GRAVITY: 2.700 (water=1)

VISCOSITY: Not Available

(VOC): Exempt due to vapor pressure.

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions.

POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS: None known.

INCOMPATIBLE MATERIALS: Oxidizing materials.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: No data available. Contact Env. Dept.

SKIN EFFECTS: No data available. Contact Env. Dept.

12. ECOLOGICAL INFORMATION



MATERIAL SAFETY DATA SHEET

Date Issued: 05/16/2005
MSDS No: 1978
Date Revised: 11/16/2011
Revision No: 5

Silicone-free Heat Sink Compound

ENVIRONMENTAL DATA: No data available. Contact Env. Dept.

ECOTOXICOLOGICAL INFORMATION: Not Applicable

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Federal, State, and Local laws governing disposal of materials can differ. Ensure compliance with proper authorities before disposal.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Nonhazardous

ROAD AND RAIL (ADR/RID)

HAZARD CLASS: Not Regulated

AIR (ICAO/IATA)

SHIPPING NAME: Nonhazardous

VESSEL (IMO/IMDG)

SHIPPING NAME: Nonhazardous

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: NOT listed

FIRE: No **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** No **CHRONIC:** No

313 REPORTABLE INGREDIENTS: None

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: NOT listed

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA REGULATORY: None of the ingredients are CERCLA/Superfund hazardous chemicals.

CLEAN AIR ACT

40 CFR PART 68---RISK MANAGEMENT FOR CHEMICAL ACCIDENT RELEASE PREVENTION: NOT listed

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

29 CFR 1910.119---PROCESS SAFETY MANAGEMENT OF HIGHLY HAZARDOUS CHEMICALS: None of the chemicals in this product are considered highly hazardous by OSHA.

OSHA HAZARD COMM. RULE: Contents of this MSDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

CANADA

WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM): No data available. Contact Env. Dept.

WHMIS CLASS: NOT listed

EUROPEAN COMMUNITY



MATERIAL SAFETY DATA SHEET

Date Issued: 05/16/2005
MSDS No: 1978
Date Revised: 11/16/2011
Revision No: 5

Silicone-free Heat Sink Compound

EEC LABEL SYMBOL AND CLASSIFICATION

Currently not classified according to EEC Directives.

16. OTHER INFORMATION

APPROVED BY: Pierce A. Pillon **TITLE:** Chemist

PREPARED BY: Pierce Pillon

REVISION SUMMARY: This MSDS replaces the 03/16/2011 MSDS.

HMIS RATING

HEALTH	<input type="text"/>	1
FLAMMABILITY	<input type="text"/>	0
PHYSICAL HAZARD	<input type="text"/>	0
PERSONAL PROTECTION	<input type="text"/>	

NFPA CODES

