

Material Safety Data Sheet

REALTEMP - Thermally Conductive Paste

ADHESIVE®



TELEPHONE 715-832-4557

SECTION 1 IDENTIFICATION

Product Name: Realtemp
Generic Name/Family: Silicone Compound
Manufacturer: Adhesive Research & Development
Eau Claire, WI
Telephone: 715.831.0277

SECTION 2 INGREDIENTS

| Components | CAS# | % By Weight | MAX. EXPOSURE GUIDELINES | |
|----------------|------------|----------------|--------------------------|-----------|
| | | | OSHA | ACGIH TLV |
| Aluminum Oxide | 1344-28-1 | 70-80% | 15mg/m3 | 10mg/m3 |
| Silicone Resin | 63148-62-9 | 15-25% | NE | NE |
| Zinc Oxide | 1314-13-2 | 5-10% | 15mg/m3 | 10mg/m3 |

SECTION 3 PHYSICAL DATA

Boiling Point (Degree °F): ND
Vapor Pressure (mm Hg @ 25 C): Negligible
Percent Volatile by Volume: Negligible
Specific Gravity (Water = 1): 2.45-2.55
Solubility in Water: Insoluble
Vapor Density: ND
Appearance and Odor: Off-white paste

SECTION 4 FIRE AND EXPLOSION HAZARD DATA

Flash Point (Degree °F): Not Established; >200°F
Flammability Limits: Not Established
Extinguishing Media: Use carbon dioxide, dry chemical, foam, water fog.
HMIS: **Health 1, Flammability 1, Reactivity 1**

Unusual Fire and Explosion Hazard: Decomposition and combustion products may be toxic. Closed containers may violently rupture under fire conditions.

Special Firefighting Procedures: Firefighters/rescue personnel should wear positive pressure self contained breathing apparatus and full protective equipment. Cool exposed containers with water to prevent pressure buildup. If large quantities of material are involved, evacuate area and fight fire from a safe distance.

SECTION 5 REACTIVITY DATA

Product Stability: Product is stable under normal handling and storage conditions. Hazardous polymerization will not occur; however, review reactivity data concerning conditions to avoid and incompatible substances.

Incompatibility: Incompatible with strong oxidizers, acids, and bases.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, oxides of silicon, zinc and aluminum and other organic substances may be formed during combustion. The chemical nature and quantity of decomposition by-products will vary widely depending on the conditions of combustion.

Conditions to Avoid: Avoid storage in open containers, exposure to open flame or uncontrolled exposure to heat, uncontrolled mixing with curing agents or exposure to incompatible substances.

SECTION 6 RELEASE RESPONSE DATA

Spill response operations must be conducted in accordance with the provisions of OSHA 29 CFR 1910.120. Review the entire MSDS before proceeding with spill response.

Small Spills: Activate available exhaust ventilation equipment in the immediate spill area. Wipe up or absorb spilled material with vermiculite or other similar material. Wash area with soapy water; area will be slippery until cleaned. Collect absorbed material and water rinses in appropriate containers. Dispose of in accordance with Federal, State, and local regulations.

Large Spills: Limit access to the spill area. Shut off source of the release if this can be done without risk of injury. Activate available exhaust ventilation systems in the area. Dike area to contain spill and prevent releases to sewers or other waterways. Collect spilled material for salvage/disposal. Apply absorbent material to soak up residue. Wash area with soapy water; area will be slippery until cleaned. Prevent runoff from entering waterways. Transfer absorbed material and water rinses to appropriate waste containers. Dispose of in accordance with Federal, State, and local regulations.

SECTION 7 HANDLING PRECAUTIONS

The recommendations described in this section are provided as general guidance for minimizing exposure when handling this product. Because usage conditions will vary depending on customer application, specific safe handling procedures should be developed by a person knowledgeable in the intended usage conditions and equipment. Employees must be properly trained in safe handling of this product prior to use.

Personal Protection: This product can cause eye irritation. Prevent eye contact through the use of chemical safety glasses, splash-proof chemical goggles, or face shield. This product can cause skin irritation. Wear appropriate protective gloves to minimize skin contact. If necessary, a proper chemical-resistant apron and additional impervious clothing should be used to minimize skin contact and prevent contamination of clothing. Normal work clothing should be washed before re-use. Wash hands and face thoroughly after handling this product and before eating, drinking or smoking. Emergency eye wash facilities and safety shower should be available.

Ventilation Recommendations and Respiratory Protection:

Provide effective mechanical exhaust ventilation to draw vapors, mists or fumes generated during processing away from the worker and prevent routine inhalation. This is necessary especially during elevated temperature processing. Ventilation must be sufficient to maintain airborne levels of Section 2 ingredients below their PEL/TLV values. Use an appropriate, properly fitted respirator if exposures exceed PEL/TLV values. The type of protection selected (SCBA, air-purifying, etc.) will depend upon the conditions of use. Observe OSHA regulations for respiratory protection (29 CFR 1910.134).

Storage: Store in a cool, dry location with adequate ventilation. Keep container tightly sealed when not in use. Keep away from open flames and heat sources. Consult the product Technical Data Sheet for detailed storage information.

SECTION 8 HEALTH DATA

Routes of Exposure: Skin and eye contact.

Medical Conditions Aggravated by Exposure: No data is available for this product mixture.

Eye Contact: Contains materials irritating to the eyes. Symptoms may include blurred vision, burning sensation and tearing.

Skin Contact: May cause slight skin irritation.

Inhalation: Heating can generate vapors that may cause respiratory irritation, nausea and headaches. Inhalation hazard at room temperature is unlikely, do to the low volatility of this product.

Ingestion: Harmful if swallowed.

Chronic Health Effects: Exposure to the filler material listed in section 2 is unlikely to occur unless the product is applied in a manner which results in the generation of mists or fumes, or when machining of the cured product results in generation of dust particles.

SECTION 9 FIRST AID PROCEDURES

Eye Contact: Flush eyes thoroughly with water for at least 15 minutes while holding eyelids open. Get medical attention.

Skin Contact: Remove any contaminated clothing and flush the affected area of the skin thoroughly with plenty of water. Follow by washing with soap and water. Get medical attention if irritation persists. Do not reuse contaminated clothing until properly cleaned.

Inhalation: Remove victim to fresh air. Provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get immediate medical attention.

Ingestion: Dilute by giving plenty of water to drink, if victim is conscious and alert. Never give anything by mouth to a drowsy, unconscious, or convulsing person. Get immediate medical attention.

SECTION 10 ADDITIONAL INFORMATION

TSCA Status: All components of this product are listed in the EPA Toxic Substance Control Act Inventory.

SARA Status: This product does not contain any substances regulated by the SARA Section 313 amendments to RCRA.

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