Raychem
MATERIAL SAFETY DATA SHEET

Issue No.: 17 **Effective Date:** December 1995 **Serial No.:** RAY/3006

PRODUCT IDENTIFICATION

Product Name: Thermofit S-1125 Adhesive, Parts A & B

Manufacturer: **Raychem Corporation**
300 Constitution Drive
Menlo Park, CA 94025

Chemical Name: Not applicable, mixture
CAS #: Not applicable, mixture
DOT Proper Shipping Name: Not regulated
DOT Identification No.: Not regulated
DOT Hazard Classification: Not regulated
TSCA Inventory Status: All ingredients are listed.

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE or ACCIDENT
Call CHEMTREC - Day or Night - 1-800-424-9300 Toll free in the continental U.S., Hawaii, Puerto Rico, Canada, Alaska or Virgin Islands. For calls originating elsewhere: (703) 527-3887 (collect calls accepted)

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HAZARDOUS INGREDIENTS

This product is a two-part epoxy resin.

Part A: Amide Terminated Polymer (Proprietary)

Part B: Bisphenol A/Epichlorohydrin Epoxy Resin (CAS # 25068-38-6)

PHYSICAL PROPERTIES

Appearance and Odor: Part A: Viscous gray paste. Slight ammonia odor.
Part B: Viscous black paste. None to slight odor.

Boiling Point: Part A: >302°F (150°C)
Part B: >302°F (150°C)

Vapor Pressure: Part A: Not determined
Part B: Not determined

Volatility (% by volume): Part A: 0.0%
Part B: 0.0%

Vapor Density: Part A: Not determined
Part B: Not determined

Specific Gravity (Water = 1): Part A: 1.26
Part B: 1.33

Evaporation Rate: Part A: Not determined
Part B: Not determined

Flash Point/Method: Part A: Not available
Part B: Not available

Solubility in Water (%): Part A: Insoluble
Part B: Insoluble

Flammable Limits in Air (volume %): lower Not established **upper** Not established

HEALTH HAZARD INFORMATION

Exposure Limits: Polyamide/Amine Blend: None established

Bisphenol A/Epichlorohydrin Epoxy Resin: None established

H**ealth Effects/Symptoms of Exposure:**

The health effects described below refer to the uncured resin, Parts A & B. The information presented below corresponds to the individual components of this product. Toxicity studies have not been performed on the mixture as a whole.

Acute (Short-Term Exposure):

Eye Contact: Part A: This material is corrosive. Direct contact with the product, or exposure to vapors or mists, can cause severe burns to the eyes. Symptoms may include cloudy appearance of the cornea, chemical burns, pain, tearing, ulcers, impaired vision or loss of vision. Direct contact or exposure to vapors or mists may cause stinging, tearing, redness, swelling, corneal damage and irreversible eye damage. Persons with pre-existing eye disorders may be more susceptible to the effects of this material.

Part B: This material is an eye irritant. Direct contact or exposure to vapors or mists may cause stinging, tearing, redness, swelling, and hazy vision. Persons with pre-existing eye disorders may be more susceptible to the effects of this material.

Skin Contact: Part A: This material may cause mild skin irritation. Symptoms of exposure may include redness, swelling, and itching. Prolonged contact may cause redness and burning of the skin. Repeated contact may cause an allergic skin reaction in sensitized individuals. Persons with pre-existing skin disorders may be more susceptible to the effects of this material. There is insufficient information available to predict the effects from skin absorption.

Part B: This material may cause mild skin irritation. Symptoms of exposure may include redness, swelling, and itching. Prolonged contact may cause redness and burning of the skin. Repeated contact may cause an allergic skin reaction in sensitized individuals. Persons with pre-existing skin disorders may be more susceptible to the effects of this material. There is insufficient information available to predict the effects from skin absorption.

Ingestion (Swallowing):

Part A: Ingestion of this product is highly unlikely. However, if swallowed in excessive quantities, this product may cause pain, abdominal tenderness, nausea, diarrhea, blood in vomitus, blood in feces, and gastrointestinal irritation.

Part B: Ingestion of this product is highly unlikely. However, if swallowed in excessive quantities, this product may cause pain, abdominal tenderness, nausea, diarrhea, blood in vomitus, blood in feces, and gastrointestinal irritation.

Inhalation (Breathing):

Part A: Vapors produced during heat curing may cause irritation of the upper respiratory tract. Symptoms may include soreness of the nose and throat, coughing, and sneezing. Pre-existing lung disorders (e.g., asthma-like conditions) may be aggravated by exposure to this material.

Part B: Vapors produced during heat curing may cause irritation of the upper respiratory tract. Symptoms may include soreness of the nose and throat, coughing, and sneezing. Pre-existing lung disorders (e.g., asthma-like conditions) may be aggravated by exposure to this material.

Chronic (Long-Term Exposure):

The ingredients of this product, present at equal to or greater than 0.1% of the product, are not listed by OSHA, NTP, or IARC as suspect carcinogens.

A component of Part B of this product (Bisphenol A/-Epichlorohydrin Epoxy Resin) is positive in *in vitro* microbial mutagenicity screening tests, and has produced chromosomal aberrations in cultured rat liver cells. It has, however, proven to be inactive when tested in *in vivo* mutagenicity assays. (Note: Mutagenicity assays are a means to identify if a chemical may cause changes in the genetic material (DNA) of a cell). What these findings mean to humans is uncertain.

Comments: Overheating the material to temperatures above 300°F (149°C) may produce vapors that may cause eye, skin, nose, and throat irritation. Respiratory symptoms associated with pre-existing lung disorders (e.g., asthma conditions) may be aggravated by exposure to overheated material.

STORAGE, HANDLING, AND PREVENTATIVE MEASURES

Stability at room temperature: Stable.

Conditions to Avoid: Avoid excessive heat for prolonged periods of time.

Incompatibilities: Uncured resins may react exothermically (release heat), with acids, bases and strong oxidizing agents.

Hazardous Polymerization: Hazardous polymerization will not occur.

Thermal Degradation and Combustion Byproducts: Degradation and combustion byproducts may be toxic and should not be inhaled. Thermal degradation is not significant at temperatures achieved during proper application, as directed by product instructions. At temperatures above 300°F (149°C), or most significantly if the products are burned, the thermal degradation products may include, but are not limited to, carbon monoxide, carbon dioxide, nitrogen compounds, amine compounds, acids, aldehydes, and toxic vapors, gases or particulates.

Handling: Do not get in eyes. Avoid contact with skin or clothing. Wash thoroughly after handling. Contaminated leather articles, including shoes, cannot be decontaminated and should be destroyed to prevent reuse. Avoid breathing vapors from heated material. Application of adhesive (Parts A & B) should be done in a well-ventilated area.

Other Precautions: Containers, even those that have been emptied, can contain hazardous product residues. Handle in accordance with the precautions outlined in the Handling Section above. Parts A and B release heat when combined.

Storage: Store in a cool, dry area. Keep away from open flames and high temperatures. Keep containers closed.

Ventilation: In accordance with good industrial hygiene practice, ensure adequate ventilation during application.

Respiratory Protection: Depending on the airborne concentration of vapors, use a NIOSH/MSHA approved air purifying respirator with organic vapor cartridges. At temperatures greater that 300°F (149°C), hazardous thermal degradation products may be released. Therefore, if temperatures exceed 300°F (149°C), air-supplied respirators are recommended.

Protective Clothing: Do not get in eyes. Use safety glasses with side shields or goggles to prevent contact. Avoid prolonged or repeated contact with skin. Wear rubber gloves to prevent or minimize contact.

Disposal: This material is not considered a hazardous waste according to U.S. EPA standards. Classification according to all local and state hazardous waste regulations is required before disposal.

EMERGENCY AND FIRST AID PROCEDURES

This product is a two-part epoxy resin. The first aid instructions below refer to exposure to Part A or Part B of the uncured resin.

Eyes: Hold eyelids apart and flush affected eye(s) immediately with clean water for at least 15 minutes. Seek immediate medical attention.

Skin: Flush skin with plenty of water and wash affected area(s) with soap and water. Remove contaminated clothing and wash before reuse. Thoroughly clean shoes before reuse. Contaminated leather articles, including shoes, cannot be decontaminated and should be destroyed to prevent reuse. If irritation persists or allergic symptoms develop, seek medical attention.

Ingestion: Not a normal route of exposure. DO NOT induce vomiting. If victim is conscious and alert, immediately rinse mouth with water and dilute the ingested material by giving one glass of water to drink. Seek immediate medical attention.

Inhalation: If respiratory symptoms or other symptoms of exposure develop, move victim to fresh air. If symptoms persist, seek medical attention. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention. If victim is not breathing, immediately begin artificial respiration. Keep victim warm and quiet; seek immediate medical attention.

Steps to be Taken in Case of Release or Spill: Wear appropriate personal protection when responding. Contain spill with inert absorbent. Take measures to stop spillage at the source. Transfer contaminated absorbent into a container and dispose in accordance with local, state and federal laws.

Unusual Fire and Explosion Hazards: Toxic fumes may be given off in a fire. See sections on Thermal Degradation and Combustion Byproducts and Other Precautions.

Special Fire Fighting Procedures: Firefighters should wear self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode when fighting fires. Use water spray to cool nearby containers and structures exposed to fire.

Extinguishing Media: carbon dioxide _X_ **water** _X_ **dry chemical** _X_ **foam** _X_ **other** _____

Data Sheet Prepared By: Linda Massey, Corporate Toxicology **Date:** December 1995

Data Sheet Approved By: Ron Watson, Thermofit Division **Date:** December 1995