# MATERIAL SAFETY DATA SHEET

# SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: THERMALCOTE I

GENERAL USE: Heat transfer compound

CARCINOGENICITY

PRODUCT DESCRIPTION: White paste, mild characteristic odor



PRODUCT DESCRIPTION: White paste, mild of	cnaracteristic odor					
MANUFACTURER'S NAME		DATE PREPARI	ED: Septem	ber 22, 2007	7	
Aavid Thermalloy, LLC.		SUPERSEDES:	•	y 3, 2005		Page 1 c
ADDRESS (NUMBER, STREET, P.O. BOX)		TELEPHONE N	UMBER FOR	INFORMATI	ON	
70 Commercial St.		(603) 527-229				
(CITY, STATE AND ZIP CODE)	COUNTRY	EMERGENCY T				
Concord, NH 03301	USA	ChemTel Inc.	1- (800) 255-3	3924 Intl. +	01 (813	) 248-0585
DISTRIBUTOR'S NAME						
Same		TELEBUIONE N	LIMBED FOR	INICODMATI	ON	
ADDRESS (NUMBER, STREET, P.O. BOX)		TELEPHONE N	IUMBER FOR	INFORMATI	ON	
(CITY, STATE AND ZIP CODE)	COUNTRY	EMERGENCY T	TELEPHONE I	NUMBER		
SECTIO	ON 2 - HAZARD	OUS INGREI	DIENTS			
HAZARDOUS COMPONENTS	CAS#	%	OSHA PEL	ACGIH	TWA	SARA
HAZARDOUS COMPONENTS	CAS#	(by weight)	PPM MG/M3	PPM	MG/M3	IG/M3 TITLE III L
Polydimethylsiloxane (b)	63148-62-9	30 - 60	not establis	shed		
Zinc oxide (as zinc) (a)	1314-13-2	30 - 60	15		10	Yes
(b) This product is not considered a hazardous chemic						
(b) This product is not considered a hazardous chemic certain regulatory agencies, government agencies or st		ng of this product or th	the product is lis			
EMERGENCY OVERVIEW	tates may require the listing the listing the listing the list of	ng of this product or the	the product is lis	ed only for inf	ormation.	
(b) This product is not considered a hazardous chemic certain regulatory agencies, government agencies or st	tates may require the listing the states of	ng of this product or the	the product is lis	ed only for inf	ormation.	
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(b) This product is not considered a hazardous chemic certain regulatory agencies, government agencies or st   SECTION  EMERGENCY OVERVIEW  White paste, ingestion may cause gastric distress Hazard symbols for this product - None. Risk Ph	ON 3 - HAZARD  ss. Exposing product to trase - Not classified	ng of this product or the second of this product or the second of this product or the second of the	the product is lis  CATION  400° F, 204° C	ed only for info	ate irritat	ing fume.
(b) This product is not considered a hazardous chemic certain regulatory agencies, government agencies or state of the certain regulatory agencies, government agencies or state of the certain regulatory agencies, government agencies or state of the certain regulatory agencies, government agencies or state of the certain regulatory agencies, government agencies or state of the certain regulatory agencies, government agencies or state of the certain regulatory agencies, government agencies or state of the certain regulatory agencies, government agencies or state of the certain regulatory agencies, government agencies or state of the certain regulatory agencies, government agencies or state of the certain regulatory agencies, government agencies or state of the certain regulatory agencies, government agencies or state of the certain regulatory agencies, government agencies or state of the certain regulatory agencies, government agencies or state of the certain regulatory agencies, government agencies or state of the certain regulatory agencies, government agencies or state of the certain regulatory agencies, government agencies or state of the certain regulatory agency agencies or state of the certain regulatory agencies or state of the certain regulatory agencies or state or stat	ON 3 - HAZARD  ss. Exposing product to trase - Not classified	ng of this product or the second of this product or the second of this product or the second of the	the product is lis  CATION  400° F, 204° C	ed only for info	ate irritat	ing fume.
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No

NTP?

No

IARC MONOGRAPHS?

No

OSHA REGULATED?

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# SECTION 4 - FIRST AID MEASURES

INHALATION: Remove affected person to fresh air; if symptoms persist seek medical attention.

SKIN: Remove contaminated clothing; wash affected area with soap and water; launder contaminated clothing before reuse; if irritation persists, seek medical attention.

EYES: Remove contact lenses. Flush eyes with water for 15 minutes; if irritation persists, seek medical attention.

INGESTION: Give two glasses of water for dilution; DO NOT induce vomiting; never give anything by mouth to an unconscious person; seek medical attention.

# SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT (METHOD USED)

FLAMMABLE LIMITS

LEL: Not applicable

UEL: Not applicable

610° F (321° C) Cleveland open cup ASTM-D-92

**AUTOIGNITION TEMPERATURE:** 

Not determined

NFPA CLASS:

GENERAL HAZARDS: Product will support combustion. Products of combustion include compounds of carbon, hydrogen and oxygen, including carbon monoxide.

#### **EXTINGUISHING MEDIA**

Carbon dioxide, water fog, dry chemical, chemical foam

#### FIRE FIGHTING PROCEDURES

Firefighters must wear full facepiece self - contained breathing apparatus in positive pressure mode. Do not use solid stream of water since stream will scatter and spread fire. Fine water spray can be used to keep fire - exposed containers cool.

#### UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers can explode due to buildup of pressure when exposed to extreme heat. Do not use direct stream of water on pool fires as product may reignite on water surface. Caution - Material will support combustion!

#### HAZARDOUS COMBUSTION PRODUCTS

Smoke, fumes, oxides of carbon, zinc and silicone.

# SECTION 6 - ENVIRONMENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: WILL SUPPORT COMBUSTION. Evacuate and ventilate area; confine and absorb into absorbent; place material into approved containers for disposal; refer to SARA Title III, Section 313 40 CFR 372 for details concerning reporting requirements.

# SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep container closed when not in use; protect containers from abuse; protect from extreme temperatures, open flames. CAUTION - This material will support combustion. Keep this and other chemicals out of reach of children.

# SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

#### **ENGINEERING CONTROLS**

The use of local exhaust ventilation is recommended to control emissions near the source. Provide mechanical ventilation of confined spaces. Use explosion-proof ventilation equipment. See Section 2 for Component Exposure Guidelines.

#### PERSONAL PROTECTION:

RESPIRATORY PROTECTION (SPECIFY TYPE): NIOSH approved respirator designed to remove airborne mists or fume present in excess of maximum allowable concentrations if user operations generate a mist or fume. Refer to 29 CFR 1910.134 or European Standard EN 149 for regulations.

PROTECTIVE GLOVES: Recommended for general protection

EYE PROTECTION: Recommended for general protection

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Safety eyebath nearby

WORK / HYGIENIC PRACTICES: Practice safe workplace habits. Minimize body contact with this, as well as all chemicals in general.

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MATERIAL SAFETY DATA SHEET PRODUCT NAME: THERMALCOTE I Page 3 of 4 September 22, 2007 SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES VAPOR DENSITY (AIR = 1) VAPOR PRESSURE (MM Ha) 0.12 mm Hg @ 100° C Not determined SPECIFIC GRAVITY (WATER = 1) **EVAPORATION RATE (WATER = 1)** Not determined SOLUBILITY IN WATER FREEZING POINT Negligible Not determined APPEARANCE AND ODOR pН White paste, mild characteristic odor Not determined PHYSICAL STATE **BOILING POINT** > 500° F (> 260° C) **Paste** VOLATILE ORGANIC COMPOUNDS (Total VOC's) VISCOSITY Not determined SECTION 10 - STABILITY AND REACTIVITY STABILITY UNSTABLE: CONDITIONS TO AVOID: STABLE: X Extreme temperatures > 400° F (204° C), open flames INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizing agents HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Decomposition will not occur if handled and stored properly. In case of a fire, oxides of carbon, zinc and silicone, hydrocarbons, fumes, and smoke may be produced. MAY OCCUR: HAZARDOUS POLYMERIZATION CONDITIONS TO AVOID: WILL NOT OCCUR: X None SECTION 11 - TOXICOLOGICAL INFORMATION LD50 of Ingredient LC50 of Ingredient EINECS# CAS# Hazardous Ingredients (Specify Species and Route) (Specify Species) Not established Not established Polydimethylsiloxane (b) 63148-62-9 Not found 7950 mg / kg 2500 mg / m3 Zinc oxide (as zinc) (a) 1314-13-2 215-222-5 Oral - mouse Inhalation - mouse

# SECTION 12 - ECOLOGICAL INFORMATION

No data are available on the adverse effects of this material on the environment. Neither COD nor BOD data are available. Based on the chemical composition of this product it is assumed that the mixture can be treated in an acclimatized biological waste treatment plant system in limited quantities. However, such treatment should be evaluated and approved for each specific biological system. None of the ingredients in this mixture are classified as a Marine Pollutant.

# SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose of in accordance with Local, State, and Federal Regulations. This product may produce concentrated hazardous vapors or fumes in a disposal container creating a dangerous environment. Refer to "40 CFR Protection of Environment Parts 260 - 299" for complete waste disposal regulations for ignitable materials. Consult your local, state, or Federal Environmental Protection Agency before disposing of any chemicals. Do not flush to sanitary sewer or waterway.

# SECTION 14 - TRANSPORT INFORMATION

PROPER SHIPPING NAME: Not Regulated

HAZARD CLASS / Pack Group: None / None

REFERENCE: Not Applicable

IDENTIFICATION NUMBER: None

LABEL: None Required

IATA HAZARD CLASS / Pack Group: None

IMDG HAZARD CLASS: None RID/ADR Dangerous Goods Code: None Canadian TDG Class / Division: None

HAZARD SYMBOLS: None

Note: Transportation information provided is for reference only. Client is urged to consult CFR 49 parts 100 - 177, IMDG, IATA, EC, United Nations TDG, and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

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# SECTION 15 - REGULATORY INFORMATION

# TSCA (Toxic substance Control Act)

All components of this product are listed on the U.S. Toxic Substances Control Act Chemical Inventory (TSCA Inventory) or are exempted from listing because a Low Volume Exemption has been granted in accordance with 40 CFR 723.50.

#### SARA TITLE III (Superfund Amendments and Reauthorization Act)

311/312 Hazard Categories

None

#### 313 Reportable Ingredients:

(a) A "Yes" in the SARA TITLE III column in Section 2 indicates a toxic chemical subject to annual reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

#### CERCLA (Comprehensive Response Compensation and Liability Act)

None

#### **CPR (Canadian Controlled Products Regulations**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. WHMIS Classification: Not controlled

### **IDL** (Canadian Ingredient Disclosure List

Components of this product identified by CAS number and listed on the Canadian Ingredient Disclosure List are shown in Section 2.

#### DSL / NDSL (Canadian Domestic Substances List / Non-Domestic Substances List)

Components of this product identified by CAS number are listed on the DSL or NDSL, or are otherwise in compliance with the New Substances Notification (NSN) regulations. Only ingredients classified as "hazardous" are listed in Section 2 unless otherwise indicated.

#### EINECS (European Inventory of Existing Commercial Chemical Substances

Components of this product identified by CAS numbers are on the European Inventory of Existing Commercial Chemical Substances.

#### **EC Risk Phrases**

Not classified

#### **EC Safety Phrases**

S2 Keep out of the reach of children.

#### **CALIFORNIA PROP 65**

The following ingredients are present in this product at less than 0.05% and known to the state of California to cause cancer: Lead and Cadmium.

The following ingredients are present in this product at less than 0.05% and known to the state of California to cause reproductive toxicity: Lead and Cadmium.

# SECTION 16 - OTHER INFORMATION

No specific notes.

HMIS HAZARD RATINGS HEALTH 0 \* = Chronic Health Hazard 2 = MODERATE

FLAMMABILITY 0 0 = INSIGNIFICANT 3 = HIGH PHYSICAL HAZARD 0 1 = SLIGHT 4 = EXTREME

PERSONAL PROTECTIVE EQUIPMENT A Safety Glasses

REVISION SUMMARY: This MSDS has been revised in the following sections:

No changes

MSDS Prepared by: ChemTel Inc.

1305 N. Florida Ave. Tampa, Florida USA 33602

(888) 255-3924 Intl. 01+ (813) 248-0573 www.chemtelinc.com

ChemTel INC.

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.