

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: THERMALCOTE II

GENERAL USE: Heat transfer compound

PRODUCT DESCRIPTION: Blue paste, mild characteristic odor



**AAVID
THERMALLOY**

MANUFACTURER'S NAME

Aavid Thermalloy, LLC.

DATE PREPARED: September 22, 2007

SUPERSEDES: February 3, 2005

Page 1 of 4

ADDRESS (NUMBER, STREET, P.O. BOX)

70 Commercial St.

TELEPHONE NUMBER FOR INFORMATION

(603) 527-2292

(CITY, STATE AND ZIP CODE)

Concord, NH 03301

COUNTRY

USA

EMERGENCY TELEPHONE NUMBER

ChemTel Inc. 1- (800) 255-3924 Intl. + 01 (813) 248-0585

DISTRIBUTOR'S NAME

Same

ADDRESS (NUMBER, STREET, P.O. BOX)

TELEPHONE NUMBER FOR INFORMATION

(CITY, STATE AND ZIP CODE)

COUNTRY

EMERGENCY TELEPHONE NUMBER

SECTION 2 - HAZARDOUS INGREDIENTS

HAZARDOUS COMPONENTS	CAS #	%	OSHA PEL		ACGIH TWA		SARA TITLE III	RQ LBS
			PPM	MG/M3	PPM	MG/M3		
Zinc oxide (as zinc) (a)	1314-13-2	60 - 80		15		10	Yes	
Tricresyl phosphate (b)	1330-78-5	0.5 - 1.0	not established					
Pentaerythritol ester of heptanoic, caprylic, capric and isononanoic acids	118685-24-8	10 - 30	not established					
Dipentaerythritol ester of heptanoic, caprylic, capric and isononanoic acids	118685-22-6	10 - 30	not established					
Silicon dioxide, amorphous	112945-52-5	1 - 5		6				
(a) See Section 15								
(b) Product is listed or defined as a marine pollutant in IMDG Code or 49 CFR 172.101 Appendix B, List of Marine Pollutants.								

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Blue paste, ingestion may cause gastric distress. Exposing product to extreme heat (> 400° F, 204° C) may generate irritating fume.

POTENTIAL HEALTH EFFECTS

INHALATION: None expected, however, certain individuals may experience minor nausea or headaches. Breathing mists or fume may cause irritation to respiratory tract.

SKIN: None expected, however, prolonged contact may cause irritation.

EYES: Contact with eyes may cause irritation.

INGESTION: May cause gastric distress, vomiting and diarrhea.

CARCINOGENICITY

NTP?

No

IARC MONOGRAPHS?

No

OSHA REGULATED?

No

MATERIAL SAFETY DATA SHEETPRODUCT NAME: THERMALCOTE II
September 22, 2007

Page 2 of 4

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) >500° F (>260° C) Cleveland open cup ASTM-D-92	FLAMMABLE LIMITS AUTOIGNITION TEMPERATURE:	LEL: Not applicable Not determined	UEL: Not applicable NFPA CLASS: IIIB
-----------------------------------------------------------------------------	-----------------------------------------------	---------------------------------------	------------------------------------------------

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 foamFIRE 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 and zinc**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.

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: THERMALCOTE II
September 22, 2007

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

VAPOR PRESSURE (MM Hg) Not determined	VAPOR DENSITY (AIR = 1) Not determined
SPECIFIC GRAVITY (WATER = 1) 3.200	EVAPORATION RATE (WATER = 1) Not determined
SOLUBILITY IN WATER Negligible	FREEZING POINT Not determined
pH Not determined	APPEARANCE AND ODOR Blue paste, mild characteristic odor
BOILING POINT > 500° F (> 260° C)	PHYSICAL STATE Paste
VISCOSITY Not determined	VOLATILE ORGANIC COMPOUNDS (Total VOC's) None

SECTION 10 - STABILITY AND REACTIVITY

STABILITY UNSTABLE: _____ STABLE: X	CONDITIONS TO AVOID: 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 and zinc, hydrocarbons, fumes, and smoke may be produced.	
HAZARDOUS POLYMERIZATION MAY OCCUR: _____ WILL NOT OCCUR: X	CONDITIONS TO AVOID: None

SECTION 11 - TOXICOLOGICAL INFORMATION

Hazardous Ingredients	CAS #	EINECS #	LD50 of Ingredient (Specify Species and Route)	LC50 of Ingredient (Specify Species)
Zinc oxide (as zinc) (a)	1314-13-2	215-222-5	7950 mg / kg Oral - mouse	2500 mg / m3 Inhalation - mouse
Tricresyl phosphate (b)	1330-78-5	215-548-8	5190 mg / kg Oral - rat	Not established
Pentaerythritol ester of heptanoic, caprylic, capric and isononanoic acids	118685-24-8	Not found	Not established	Not established
Dipentaerythritol ester of heptanoic, caprylic, capric and isononanoic acids	118685-22-6	Not found	Not established	Not established
Silicon dioxide, amorphous	112945-52-5	Not found	3160 mg / kg	Not established

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. Tricresyl phosphate, one of the ingredients in this mixture is classified as a Marine Pollutant but does not meet the minimum requirements to classify as a transportation hazard.

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	IATA HAZARD CLASS / Pack Group: None
REFERENCE: Not Applicable	IMDG HAZARD CLASS: None
IDENTIFICATION NUMBER: None	RID/ADR Dangerous Goods Code: None
LABEL: None Required	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.

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: THERMALCOTE II
September 22, 2007

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

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986

There are no reportable chemicals present known to the state of California to cause cancer or reproductive toxicity.

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.

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



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.