

U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

Form Approved  
OMB No. 44-R1387

DATE PREPARED 11/25/85

# MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing,  
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

## SECTION I

|  |         |   |
|--|---------|---|
| MANUFACTURER'S NAME<br>Thermacote Welco              |         | EMERGENCY TELEPHONE NO.<br>704-739-6421 |
| ADDRESS<br>Hwy 161, York Road, Kings Mtn. N.C. 28086 |         |   |
| CHEMICAL NAME AND SYNONYMS                           |         | TRADE NAME AND SYNONYMS<br>52 FLUX      |
| CHEMICAL FAMILY                                      | FORMULA |   |

IMPORTANT! This section covers the materials from which this product is manufactured. The fumes and gases produced during welding with normal use of this product are covered in Section V.

| Material (CAS No.)                  | Weight % | Exposure Limit         |                |
|-------------------------------------|----------|------------------------|----------------|
|                                     |          | 1984/85 TLV-TWA        | (OSHA PEL)     |
| Zinc Chloride Fumes # 7646-85-7     |          | 1 mg/m <sup>3</sup>    | ACGIH          |
| Zinc Ammonium Chloride # 52628-25-8 |          | 3.96 mg/m <sup>3</sup> | ORM-E          |
| Tin# 7440-31-5                      |          | 2 mg/m <sup>3</sup>    | ACGIH as Fumes |
| Lead #7439-92 1                     |          | 0.15 mg/m <sup>3</sup> | ACGIH as fumes |
| Zinc #7440-66-6                     |          | 5 mg/m <sup>3</sup>    | ACGOH as Fumes |
| Total Fluoride                      |          | 2.5 mg/m <sup>3</sup>  | ACGIH as Fumes |

\*The term "hazardous" should be interpreted as a term required and defined in the OSHA Hazard Communications Standard (29CFR 1910.1200) and does not necessarily imply the existence of any hazard.

## SECTION III - PHYSICAL DATA

|                         |  |                                       |     |
|-------------------------|--|---------------------------------------|-----|
| BOILING POINT (°F.)     | N/A  | SPECIFIC GRAVITY (H <sub>2</sub> O=1) | 3,4 |
| VAPOR PRESSURE (mm Hg.) | N/A  | PERCENT VOLATILE BY VOLUME (%)        | N/A |
| VAPOR DENSITY (AIR=1)   | N/A  | EVAPORATION RATE (_____ =1)           | N/A |
| SOLUBILITY IN WATER     | Slight                                       |                                       |     |
| APPEARANCE AND ODOR     | Fine gray powder with no characteristic odor |                                       |     |

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

|  |                  |                 |                 |
|--|------------------|-----------------|-----------------|
| FLASH POINT (Method used)<br>N/A   | FLAMMABLE LIMITS | L <sub>51</sub> | U <sub>51</sub> |
| EXTINGUISHING MEDIA<br>N/A   |                  |                 |                 |
| SPECIAL FIRE FIGHTING PROCEDURES<br>None                                 |                  |                 |                 |
| UNUSUAL FIRE AND EXPLOSION HAZARDS<br>May release toxic fumes in a fire. |                  |                 |                 |

SECTION V - HEALTH HAZARD DATA

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| THRESHOLD LIMIT VALUE   |
| EFFECTS OF OVEREXPOSURE   Swallowing: Can cause damage to digestive system            |
| SKIN ABSORPTION: Not classified as a skin absorbent.                                  |
| INHALATION: Irritation to respiratory system.   |
| SKIN CONTACT: POSSIBLE Dermatitis, Possibly a chemical burn.                          |
| EYE CONTACT: Possible burn of eye surface.  |
| EMERGENCY AND FIRST AID PROCEDURES  |
| Swallowing: Call physician at once. Give large quantities of milk/water, if conscious |
| Skin: Promptly flush with water. if rash develops call a physician.                   |
| Inhalation: Remove to fresh air.  |
| Eyes: Flush with water for at least 15 minutes.                                       |

SECTION VI - REACTIVITY DATA

|  |                |    |                     |
|--|----------------|----|---------------------|
| STABILITY  | UNSTABLE       |    | CONDITIONS TO AVOID |
|  | STABLE         | X  | NONE                |
| INCOMPATIBILITY (Materials to avoid)<br>Cyanides and sulfides            |                |    |                     |
| HAZARDOUS DECOMPOSITION PRODUCTS<br>Nitrogen oxide and Hydrogen chloride |                |    |                     |
| HAZARDOUS POLYMERIZATION   | MAY OCCUR      |    | CONDITIONS TO AVOID |
|  | WILL NOT OCCUR | XX | None.               |

SECTION VII - SPILL OR LEAK PROCEDURES

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| STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED<br>Sweep up and dispose as a hazardous solid waste. |
| WASTE DISPOSAL METHOD<br>Dispose of in accordance with all federal, state, and local regulations.             |

SECTION VIII - SPECIAL PROTECTION INFORMATION

|  |   |                  |
|--|---|------------------|
| RESPIRATORY PROTECTION (Specify type)<br>If the work area is not properly ventilated, use a NIOSH approved mask. |   |                  |
| VENTILATION<br>Maintain air flow away from user so that the TLV is never exceeded.                               | LOCAL EXHAUST<br>MECHANICAL (General)     | SPECIAL<br>OTHER |
| PROTECTIVE GLOVES<br>SEE BELOW   | EYE PROTECTION<br>Chemical safety glasses |                  |
| OTHER PROTECTIVE EQUIPMENT<br>Regular protective equipment as is normally used in galvanizing operation.         |   |                  |

SECTION IX - SPECIAL PRECAUTIONS

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| PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING<br>Store compound in closed container at ambient conditions. Wash hands thoroughly. |
| OTHER PRECAUTIONS<br>Wash contaminated clothing before re-use.  |