



MATERIAL SAFETY DATA SHEET

Section 1

Product Identification

Product Name: TLC4Metal HT

Date Prepared: 3/26/2004

Part Number: 42024

Formula:

Manufacturer / Supplier:

Techline Coatings, Inc
26844 ADAMS AVE.
MURRIETA, CA 92562
USA
Phone 951-304-0498
Fax 951-461-9658
www.techlinecoatings.com

Chemical Family:

Emergency Phone:

Chemtec
1-800-424-9300
1-703-527-3887

Section 2

Composition / Data On Components

Component	CAS#	% of Weight	OSHA PEL	ACGIH TLV	Sara 313
POWDERED ALUMINUM	7429-90-5	>40	15mg/m3	10mg/m3	Yes
ETHYL BENZENE	100-41-4	<1	100 ppm	100 ppm	Yes
METHYL ETHYL KETONE	78-93-3	>4	200 ppm	200 ppm	Yes
TOLUENE	108-88-3	<12	300 ppm	50 ppm	Yes
SILICA, AMORPHOUS FUDED	60676-86-0	<20	30 / (%SiO ₂ + 2) mg/m ³	0.1 mg/m ³	
XYLENE	1330-20-7	<15	100 ppm	100 ppm	Yes
ZINC POWDER	7440-66-6	<30			Yes
Stainless Steel Flake			Trade Secret		

Components not listed above are non-hazardous.

Section 3

Hazards Identification

Eye Hazard:

Direct contact and exposure to vapors is irritating to mucous membranes and the eyes, possibly causing stinging, tearing, redness and swelling of the eyes. Direct eye contact with product or high vapor concentrations may cause possible corneal damage.

Skin Hazard:

Contact may cause mild to moderate skin and mucous membrane irritation. Prolonged skin contact may defat the skin and produce dermatitis. Possible symptoms include redness, burning, drying and cracking of the skin. Absorption of this material through the skin is possible. But it is unlikely that harmful amounts will be absorbed from a single, brief exposure. Absorption of large amounts from prolonged exposure may produce central nervous system depression and effects similar to those from inhalation.

Hazards from Swallowing:

Accidental swallowing of minute amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. Aspiration into the lungs after swallowing or vomiting can result in lung inflammation, lung injury and even death due to chemical pneumonia, respiratory failure and cardiac arrest. Ingestion may also cause irritation of the gastrointestinal tract and other systemic effects from absorption. Possible symptoms could include: nausea, vomiting, diarrhea, central nervous system depression (dizziness, drowsiness, weakness, fatigue, headache, unconsciousness), muscle weakness, loss of coordination, coma, confusion, or possibly death.

Inhalation Hazard:

Inhalation of low vapor concentrations under normal conditions of handling is not likely to cause harmful effects. Inhalation of high concentrations for brief periods may cause irritation to the nose, throat and lungs, and central nervous system effects.

Prolonged or intentional exposure may lead to the damage of many organ systems, including the central and peripheral nervous system, vision, hearing, liver, kidneys, lungs, heart and blood. Symptoms may include: headache, dizziness, drowsiness, loss of coordination, fatigue, headache, irritation, nausea, vomiting, sleep disturbance, and mental confusion. Overexposures to components of this product have been associated with permanent brain and central nervous system damage, cardiac sensitization.

Product contains aluminum, zinc and silica powder. Short exposures to high concentrations of dust during filing, grinding and sanding of dry product may cause coughing and mild temporary irritation. Crystalline silica may be formed when heated to 1000°. Exposure to crystalline silica dust may cause chronic lung disease.

Potential Health Effects:

This material is not expected to cause cancer in humans.

Individuals with diseases of the nervous system, respiratory tract, skin, heart, liver, and kidneys should avoid or limit exposure. Those persons susceptible to dermatitis should limit skin contact.

Section 4

First Aid Measures

After EYE Contact:

- In case of eye contact, blot away excess chemical from around the eyes. Hold eyelids apart and immediately flush eyes with plenty of luke warm, gently flowing water for at least 15 minutes. Get medical attention.

After SKIN Contact:

- Remove contaminated clothing without delay. Flush skin thoroughly with water. Do not reuse clothing without laundering. Get medical attention immediately if irritation (redness, rash, blistering) develops.

After INHALATION:

- Remove the person away from exposure to fresh air. Keep the victim warm and quiet. Support breathing as necessary. Administer cardiopulmonary resuscitation if pulse has stopped. Obtain medical attention immediately if necessary.

After SWALLOWING:

- If swallowed, DO NOT INDUCE VOMITING unless directed to do so by medical personnel. CALL A PHYSICIAN OR THE POISON CONTROL CENTER IMMEDIATELY.
- If the victim stops breathing: Wipe away any remaining materials off the lips. Clear the airway and administer artificial respiration.
- If the victim is conscious: Have the person rinse his/her mouth several times with cold water and spit out. Lean the person forward to reduce risk of aspiration. Have the person drink 8 to 10 oz. of water to dilute. If possible, give a mixture of 2 tablespoons of activated charcoal with water to drink. Repeat administration of water. Keep the person warm and quiet. Never give anything by mouth to an unconscious victim or a person losing consciousness.
- Inhalation of high concentrations of this product as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. This material is an aspiration hazard. The potential danger from aspiration must be weighed against possible oral toxicity.

Section 5

Fire Fighting Measures

Flash Point: 16°F

Flammable Limits LEL-:

Flammable Limits UEL-:

Stability: See Section 10

Method:

Extinguishing Media: Fire-fighting foam, carbon dioxide, dry chemical. Water spray may be used to cool fire exposed containers.

Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and full protective gear. Avoid breathing vapors, gases and fumes. If safe to do so, shut off all gas pilot lights and electrical (spark or hot-wire) igniters and other sources of ignition. Water can be used to cool and protect exposed material.

Unusual Fire And Explosion Hazards: FLAMMABLE. DO NOT USE NEAR FIRE OR FLAME. Vapor may cause flash fire. Vapors may accumulate in confined spaces (e.g., pits, sumps, sewers) and inadequately ventilated areas. Vapors may travel to areas (rooms) away from worksite before igniting/flashing back to vapor source.

Do not reuse container. Keep away from heat, sparks, open flame and other ignition sources. In the presence of an ignition source, containers containing residual flammable vapors may explode causing serious injury or death.

Do not cut open or apply heat sources to containers.

Section 6

Accidental Release Measures

Steps to be taken in case material is released or spilled:

- Remove sources of ignition.

- Provide maximum ventilation.
- Warn other workers of spill.
- Wear protective equipment
 - NIOSH Approved Respirator
 - Gloves
 - Safety Glasses
- Do not allow material to be released into the environment without proper governmental permits

Measures for cleaning / collecting:

- Contain and pickup spilled material using spark-resistant tools. Absorb any residual solvent with inert material (e.g. sand, vermiculite) or other flammable solvent absorbing materials. Collect and dispose using approved waste containers.

Additional Information:

- See Section 7 for safe handling information.
- See Section 8 for PPE information
- See Section 13 for disposal information

Section 7

Handling and Storage

Handling:

- Keep out of reach of children. Keep containers tightly closed. Use only with adequate ventilation. Keep away from heat, sparks, flame, and other sources of ignition (i.e., pilot lights, electric motors, and static electricity).
- Use good personal hygiene. Wash thoroughly with soap and water after handling.

Storage:

- Protect from temperature extremes and direct sunlight. Do not reuse or cut open empty containers.

Section 8

Exposure Controls and Personal Protection

Engineering Controls:

Exhaust ventilation.
Showers
Eyewash stations
Use in a well-ventilated area.

Respiratory Protection:

Use NIOSH approved respirator if TWA/TLV limits are exceeded. A 95-series particulate respirator should be used when filing, grinding, or sanding.

Protective Gloves:

Chemical-resistant gloves made of Teflon or Viton are recommended. PVA or butyl rubber gloves may also be used for short-term work involving limited contact. Note: PVA should not be used when contact with water is expected. Consult your glove manufacturer for additional chemical resistance information and glove limitations.

Eye Protection:

Safety glasses with side shields or goggles.

Other Protective Equipment:

Ventilation:

Local Exhaust: Use To Maintain Below TWA Limits

Mechanical:

Use Non-Sparking Equipment

Work / Hygienic Practices:

wash thoroughly after handling product and before eating, drinking or smoking

Section 9

Physical And Chemical Properties

Appearance and Odor:

A gray or aluminum-gray colored semi-solid. / Aromatic Solvent odor

Boiling Point:

175° to 231° F

Vapor Density (Air = 1):

>1

Vapor Pressure:

Melting Point:

Solubility in Water:

negligible to slight in water

Reactivity in Water:

VOC's:

12.5%

SECTION 10

STABILITY AND REACTIVITY

Stability:

Stable

Incompatibility (Materials to Avoid):

Avoid contact with strong oxidizing agents (e.g., sulfuric acid, nitric acid), reducing agents, acids, alkalis and aliphatic amines. May attack some rubber and plastics.

Hazardous Decomposition Products:

Thermal oxidation (i.e., "burning") may produce decomposition products of carbon and nitrogen. Burning at extreme temperatures may produce oxides of aluminum and zinc.

Hazardous Polymerization:

Will Not Occur

Conditions to Avoid: Avoid contact with heat, spark, open flame or other source of ignition. Do not reuse or cut open empty container.

Section 11

Toxicological Information

- Long-term exposures may be harmful to the nervous system, lungs, kidneys, liver, heart and blood.
- A link between aluminum exposure and neurological diseases, such as Alzheimer's disease, has been suggested.
- Components of this product have been toxic to the embryo and fetus of laboratory animals at dose toxic to the mother, and have caused birth defects when dosed orally. The significance of animal data to human exposure is unknown. Prolonged intentional abuse of toluene during pregnancy can cause birth defects in humans.
- Human studies have also suggested a link between exposure to organic solvents with increased occurrence of miscarriages or birth defects in children. However, in the majority of cases, there was simultaneous exposure to a variety of solvents.
- Disruption of menstrual function has been reported from exposure to toluene.

Section 12

Ecological Information

General Comments: Do not allow material to be released into the environment without proper governmental permits. Product may be moderately toxic to aquatic organisms on an acute basis.

Section 13

Disposal Considerations

Waste Disposal Method:

- Disposal should be made in accordance with federal, state and local regulations.
- Dispose of unused or spill cleanup material as hazardous waste. Do not reuse empty containers.
- Unused, unsolidified waste material may meet the RCRA characteristics for Ignitable (D001) waste.

Section 14

Transportation Information

Hazardous for Shipping:

DOT Shipping Name:	Paint (Limited Quantity ORM-D)
Technical Name:	
DOT Hazard Class:	3
DOT Labels:	Flammable
UN Number:	UN1263
Packing Group:	II
Air (IATA):	Flammable
Sea (IMDG):	Flammable

Section 15

Regulations

Product Related Hazard Information:

National Regulations:

U.S. Regulatory Information:

- Toxic Substance Control Act (TSCA): All ingredients of this product are listed on the TSCA Chemical Substance Inventory.

Canadian Regulatory Information:

- Class B2 - Division 2: Flammable Liquid
- Class D2 - Division 2: Materials Causing Other Toxic Effects
- ETHYL BENZENE
 - WHMIS - Ingredient Disclosure List
- METHYL ETHYL KETONE
 - WHMIS - Ingredient Disclosure List
- TOLUENE
 - WHMIS - Ingredient Disclosure List
- SILICA, AMORPHOUS FUSED
 - WHMIS - Ingredient Disclosure List
- XYLENE
 - WHMIS - Ingredient Disclosure List

European Union (EU) Regulatory Information

- European Union Risk Phrases –
- R11 - Highly Flammable
- R36/37/38 - Irritating to skin, eye and respiratory system
- European Union Safety Phrases –
- S2 - Keep out of reach of children
- S7 - Keep container tightly closed
- S9 - Keep container in a well-ventilated place
- S16 - Keep away from sources of ignition - no smoking
- S29 - Do not empty into drains
- S33 - Take precautionary measures against static discharges
- S51 - Use only in well ventilated areas

State Regulations:

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects, or other reproductive harm.

Ingredient(s) - State Regulations:

POWDERED ALUMINUM

New Jersey - Workplace Hazard

New Jersey - Environmental Hazard

Pennsylvania - Workplace Hazard

Pennsylvania - Environmental Hazard

Massachusetts - Hazardous Substance

New York City - Hazardous Substance

ETHYL BENZENE

New Jersey - Workplace Hazard

New Jersey - Environmental Hazard

New Jersey - Special Hazard

Pennsylvania - Workplace Hazard

Pennsylvania - Environmental Hazard

Massachusetts - Hazardous Substance

New York City - Hazardous Substance

METHYL ETHYL KETONE

New Jersey - Workplace Hazard

New Jersey - Environmental Hazard

New Jersey - Special Hazard

Pennsylvania - Workplace Hazard

Pennsylvania - Environmental Hazard

Massachusetts - Hazardous Substance

New York City - Hazardous Substance

SILICA, AMORPHOUS FUSED

New Jersey - Workplace Hazard

Massachusetts - Hazardous Substance

TOLUENE

New Jersey - Workplace Hazard

New Jersey - Environmental Hazard

New Jersey - Special Hazard

Pennsylvania - Workplace Hazard

Pennsylvania - Environmental Hazard

California - Proposition 65

Massachusetts - Hazardous Substance

New York City - Hazardous Substance

ZINC POWDER

New Jersey - Workplace Hazard

New Jersey - Environmental Hazard

Pennsylvania - Workplace Hazard

Pennsylvania - Environmental Hazard

Massachusetts - Hazardous Substance

New York City - Hazardous Substance

Information about Limitation or Use:

Other Regulations, Limitations, and Prohibitive Regulations:

Section 16

Other Information

This information is furnished without warranty, representation, inducement or license of any kind, except that it is accurate to the best of Tech Line Coatings, Inc., knowledge or obtained from sources believed by Tech Line Coatings, Inc. to be accurate. Tech Line Coatings, Inc. does not assume any legal responsibility for use or reliance upon same. Before using any chemical, read its label, instructions and material safety data sheet.