

# TECH LINE Coatings

## SAFETY DATA SHEET

### Section 1 – Identification

**Product Identifier:** Polyphen Thermal Barrier Coating  
**Recommended Use:** Thin film Thermal Barrier Abrasion Resistant

**Manufacturer / Supplier:**  
Tech Line Coatings, Inc 26844  
ADAMS AVE.  
MURRIETA, CA 92562  
USA  
Phone/Fax 1-865-773-0599  
www.techlinecoatings.com

**Part Number:** TLHC  
**Restrictions on Use:**

Keep out of reach of children.  
**For Industrial Use Only**  
Not recommended for use on Medical equipment.  
Not recommended for use on Aviation equipment.

Emergency # N. America +1-800-535-5053  
Intl. +1-352-323-3500

### Section 2 – Hazards Identification

**Signal Word:** Danger

**Symbols:**



Hazard Statements:	GHS Classification:	Category
Highly Flammable Liquid and Vapor	Flammable Liquid	2
Harmful if Swallowed	Acute Toxicity Oral	3
Harmful in Contact With Skin	Acute Toxicity Dermal	3
Harmful if Inhaled	Acute Toxicity Inhalation	3
Causes Skin Irritation	Skin Corrosion / Irritation	2
Causes Serious Eye Irritation	Eye Damage / Irritation	2
Suspected of causing genetic defects	Germ Cell Mutagenicity	2
Suspected of causing cancer	Carcinogenicity	2

**Precautionary Statements:**

Keep away from heat / sparks / open flames / hot surfaces. - No Smoking. Ground / bond container and receiving equipment. Use explosion proof electrical / ventilating / lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

In case of fire use alcohol-resistant foam, dry chemical or carbon dioxide

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

Wear protective gloves / protective clothing (chemical proof). Wear eye protection and face protection. Wash hands, face and any exposed skin thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not eat drink or smoke when using this product. Do not breath fumes / mist / vapors / spray. Use only outdoors or in a well ventilated area.

If swallowed: Immediately call a poison center / doctor for medical advice. Rinse mouth with water.

If on skin: Wash with plenty of water. Call a poison center / doctor if you feel unwell. Immediately take off all contaminated clothing and wash it before reuse.

If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center / doctor for medical advice.

If in eyes: Rinse cautiously in water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advise / attention.

If exposed or concerned: Get medical advise / attention, from a poison center / doctor. Or if you feel unwell.

Dispose of Contents / container in accordance with regulations in your area. See section 13 for additional information.

**Section 3 – Composition / Information On Ingredients**

<b>Component Name</b>	<b>Common Name / Synonyms</b>	<b>CAS#</b>	<b>% of Weight</b>
Ethanol	Ethyl Alcohol	64-17-5	< 33%
Methyl Ethyl Ketone	MEK	78-93-3	< 17%
Phenol	Hydroxybenzene	108-95-2	< 4%
Methanol	Methyl Alcohol	67-56-1	< 4%
Dimethyl Phthalate		131-11-3	< 3%
Formaldehyde		50-00-0	< 0.3%

**Section 4 – First Aid Measures****General advise:**

- Consult a physician. Show this Safety Data Sheet to the doctor in attendance. Move out of dangerous area.

**After EYE Contact:**

- Immediately irrigate with plenty of water for 15 minutes. Obtain medical attention if irritation persists.

**After SKIN Contact:**

- Remove contaminated clothing without delay. Flush skin thoroughly with water. Do not reuse clothing without laundering.

**After INHALATION:**

- Administer oxygen if there is difficulty in breathing. Obtain medical attention immediately if necessary.

**After SWALLOWING:**

- Call a physician immediately, ONLY induce vomiting at the instructions of a physician. Never give anything by mouth to an unconscious person.

See section 11 for additional information

Notes to Physician: Treat symptomatically.

## **Section 5 – Fire Fighting Measures**

### **Extinguishing Media:**

- Water spray, alcohol resistant foam, co2, dry chemical, dry sand. Cool closed containers exposed to fire with water spray.

### **Special Fire Fighting Procedures:**

- Use full protective equipment, including self contained breathing apparatus **Unusual Fire And Explosion Hazards:**
- During emergency conditions, overexposure to decomposition products may cause a health hazard. Hazardous polymerization may take place if exposed to fire conditions. Water runoff can cause environmental damage, dike and collect water used to fight fire.

### **Specific Hazards Arising from the Chemical:**

- Flammable. Risk of ignition. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.
- Containers may explode when heated.

## **Section 6 – Accidental Release Measures**

### **Methods for Containment and Clean Up**

- Turn off all sources of heat or ignition.
- Soak up with inert absorbent material.
- Keep in suitable, marked and closed containers for disposal.
- Use spark-proof tools and explosion-proof equipment.
- Remove sources of ignition.
- Warn other workers of spill.
- Wear protective equipment
- NIOSH Approved Respirator
- Gloves
- Safety Glasses
- Stop leak if you can do so without risk.
- Do not allow material to be released into the environment.
- Retain all contaminated water for removal and treatment. DO NOT flush to sewer.

### **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:**

Do not breathe vapors or mists from spraying. Avoid contact with skin and eyes. Use with adequate ventilation to maintain exposure levels below established exposure limits. Wear personal protective equipment. If required wear an appropriate NIOSH approved respirator with paint prefilter. Use explosion-proof equipment. Do not get in eyes, on skin, or on clothing. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Take precautionary measures against static discharges.

### **Storage:**

Store in area suitable for flammable liquids. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Protect from oxidizers, inorganic acids, aldehydes, and isocyanates.

## **SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION**

<b>Component</b>	<b>ACGIH TLV</b>	<b>OSHA PEL</b>	<b>NIOSH REL</b>
Ethanol	1000 PPM	1000 PPM	1000 PPM
Methyl Ethyl Ketone	200 PPM	200 PPM	200 PPM

Phenol	5 PPM (SKIN)	5 PPM (SKIN)	5 PPM (SKIN)
Methanol	200 PPM	200 PPM	200 PPM
Dimethyl Phthalate	5 mg/m3	5 mg/m3	5 mg/m3
Formaldehyde	CEIL 0.3 ppm	TWA 0.75 ppm STEL 2 ppm	0.016 ppm

**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

**Protective Gloves:** CHEMICAL RESISTANT

**Eye Protection:** SAFETY GLASSES WITH SIDE SHIELDS OR GOGGLES

**Other Protective Equipment:** WEAR PROTECTIVE CLOTHING, CHEMICAL RESISTANT OR OTHER PROTECTIVE OUTERWEAR, AVOID CONTACT WITH SKIN OR EYES

**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**

Form : liquid

Color : Dark Grey

Odor : Strong Alcohol/Solvent Smell

Odor Threshold: Not Established

pH : Not Established

Melting point / Freezing point: Not Established

Initial boiling point : 131 – 280° F

Flash point : > 16° F

Evaporation Rate: Not Established

Upper/lower flammability or explosive limits: Not Established

Vapor pressure Not Established

Vapor density Not Established

Relative density 8.67 lbs per gallon

Solubility(ies) Water: poor

Partition coefficient: n-octanol/water Not Established

Auto-ignition temperature Not Established

Decomposition temperature Not Established

Viscosity Not Established

Total VOC 603 g/l

#### **SECTION 10 – STABILITY AND REACTIVITY**

**Stability:** STABLE

**Possibility of hazardous reactions:** Hazardous Polymerization: Will not occur.

**Conditions to avoid:** Avoid storage of open containers at elevated temperatures.

**Incompatible Materials:** oxidizers, inorganic acids, aldehydes, and isocyanates

**Hazardous Decomposition Products:** Thermal breakdown of this product during fire or very high heat conditions may evolve the following decomposition products: Silicon dioxide. Carbon oxides. Formaldehyde.

**SECTION 11 – TOXICOLOGICAL INFORMATION**

**Potential Health Effects**

<b>Inhalation</b>	Causes respiratory tract irritation, Vapors may cause drowsiness and dizziness.
<b>Ingestion</b>	Toxic if Swallowed
<b>Skin</b>	Causes Skin Irritation
<b>Eyes</b>	Causes Serious Eye Irritation

**Acute Toxicity**

Ethanol	Oral LD50	LD50 Oral - rat - 7,060 mg/kg Remarks: Lungs, Thorax, or Respiration:Other changes.
	Inhalation LC50	LC50 Inhalation - rat - 10 h - 20000 ppm
	Dermal LD50	no data available
Methyl Ethyl Ketone	Oral LD50	LD50 Oral - rat - 2,737 mg/kg
	Inhalation LC50	LC50 Inhalation - mouse - 4 h - 32,000 mg/m3 LC50 Inhalation - Mammal - 38,000 mg/m3
	Dermal LD50	LD50 Dermal - rabbit - 6,480 mg/kg
Phenol	Oral LD50	LC50 Inhalation - Rat - 4-hr 4,470 ppm (33.0 mg/l)LD50 Oral - rat - 317.0 mg/kg Remarks: Behavioral:Convulsions or effect on seizure threshold. LD50 Oral - rat - 410.0 - 650.0 mg/kg
	Inhalation LC50	LC50 Inhalation - rat - 8 h - 900 mg/m3
	Dermal LD50	LD50 Dermal - rabbit - 630.0 mg/kg
Methanol	Oral LD50	LDLO Oral - Human - 143 mg/kg Remarks: Lungs, Thorax, or Respiration:Dyspnea. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. LD50 Oral - rat - 1,187 - 2,769 mg/kg
	Inhalation LC50	LC50 Inhalation - rat - 4 h - 128.2 mg/l LC50 Inhalation - rat - 6 h - 87.6 mg/l
	Dermal LD50	LD50 Dermal - rabbit - 17,100 mg/kg
Dimethyl Phthalate	Oral LD50	LD50 Oral - rat - 8,239 mg/kg
	Inhalation LC50	no data available
	Dermal LD50	LD50 Dermal - rabbit - > 11,940 mg/kg
Formaldehyde	Oral LD50	No data available
	Inhalation LC50	No data available
	Dermal LD50	No data available

**Skin Corrosion/Irritation**

Ethanol  
Skin - rabbit - Irritating to skin. - 24 h

Methyl Ethyl Ketone

Skin - rabbit - Skin irritation - 24 h

Phenol

Skin - rabbit - Severe skin irritation - 24 h

Methanol

Skin - rabbit - No skin irritation

All other

No data available

### **Serious Eye Damage/Eye Irritation**

Ethanol

Eyes - rabbit - Mild eye irritation - 24 h - Draize Test

Phenol

Eyes - rabbit - Severe eye irritation Methanol

Eyes - rabbit - No eye irritation

Dimethyl Phthalate

Eyes - rabbit - Mild eye irritation

All other

No data available

### **Respiratory Or Skin Sensitization**

No data available

### **Germ Cell Mutagenicity**

Phenol

In vitro tests showed mutagenic effects

Methanol

Genotoxicity in vitro - Ames test - *S. typhimurium* - with and without metabolic activation – negative

Genotoxicity in vitro - in vitro assay - fibroblast - negative Mutation  
in mammalian somatic cells.

Genotoxicity in vivo - mouse - male and female - Intraperitoneal – negative

Dimethyl Phthalate

Possible risk of congenital malformation in the fetus.

All other

No data available

### **Carcinogenicity**

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Phenol)

1 – Group 1: Carcinogenic to humans (Formaldehyde)

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: Reasonably anticipated to be a human carcinogen (Formaldehyde)

Known to be human carcinogen (Formaldehyde)

OSHA: May Cause Cancer (formaldehyde)

This product contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

### **Reproductive Toxicity**

Ethanol

Reproductive toxicity - Human - female - Oral

Effects on Newborn: Apgar score (human only). Effects on Newborn: Other neonatal measures or effects. Effects on

Newborn: Drug dependence.

Methanol

Genotoxicity in vitro - Ames test - S. typhimurium - with and without metabolic activation – negative Genotoxicity in vitro - in vitro assay - fibroblast - negative Mutation in mammalian somatic cells.

Genotoxicity in vivo - mouse - male and female - Intraperitoneal - negative

Dimethyl Phthalate

Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.

All other

No data available

#### **Specific Target Organ Toxicity Single Exposure**

Methanol

Causes damage to organs

All other

No data available

#### **Specific Target Organ Toxicity Repeated Or Prolonged Exposure**

Phenol

May cause damage to organs through prolonged or repeated exposure.

All other

No data available

#### **Aspiration Hazard**

No data available

### **SECTION 12 – ECOLOGICAL INFORMATION**

**General Comments:** Do not allow material to be released into the environment without proper governmental permits

#### **Environmental Toxicity:**

Ethanol

Toxicity to fish

No data available

Toxicity to daphnia and other aquatic invertebrates

No data available

Methyl Ethyl Ketone

Toxicity to fish

mortality NOEC - *Cyprinodon variegatus* (sheepshead minnow) - 400 mg/l - 96 h  
LC50 - *Pimephales promelas* (fathead minnow) - 3,130 - 3,320 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates

LC50 - *Daphnia magna* (Water flea) - > 520 mg/l - 48 h  
EC50 - *Daphnia magna* (Water flea) - 7,060 mg/l - 24 h

Phenol

Toxicity to fish

LC50 - *Leuciscus idus* (Golden orfe) - 14.00 - 25.00 mg/l - 48 h  
LC50 - *Carassius auratus* (goldfish) - 36.10 - 68.80 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates

EC50 - *Daphnia magna* (Water flea) - 12.00 mg/l - 24 h  
EC100 - *Daphnia magna* (Water flea) - 100.00 mg/l - 24 h

Toxicity to algae

EC50 - *Chlorella vulgaris* (Fresh water algae) - 370.00 mg/l - 96 h

Methanol

Toxicity to fish

mortality LC50 - *Lepomis macrochirus* (Bluegill) - 15,400.0 mg/l - 96 h  
NOEC - *Oryzias latipes* - 7,900 mg/l - 200 h

Toxicity to daphnia and other aquatic invertebrates

EC50 - *Daphnia magna* (Water flea) - > 10,000.00 mg/l - 48 h

Toxicity to algae	Growth inhibition EC50 - Scenedesmus capricornutum (fresh water algae) - 22,000.0 mg/l - 96 h
Dimethyl Phthalate	LC50 - Pimephales promelas (fathead minnow) - 121.00 mg/l - 96 h LC50 - Oncorhynchus mykiss (rainbow trout) - 56.00 mg/l - 96 h LC50 - Lepomis macrochirus (Bluegill) - 50.00 mg/l - 96 h LC50 - Cyprinodon variegatus (sheepshead minnow) - 29.00 mg/l - 96 h NOEC - Oncorhynchus mykiss (rainbow trout) - 38 mg/l - 96 h EC50 - Daphnia magna (Water flea) - 46.00 mg/l - 48 h
Toxicity to fish	
Toxicity to daphnia and other aquatic invertebrates	
Formaldehyde	
Toxicity to fish	No data available
Toxicity to daphnia and other aquatic invertebrates	No data available
<b>Persistence and degradability</b> no data available on mixture	
<b>Bioaccumulative potential</b> no data available on mixture	
<b>Mobility in soil</b> no data available on mixture	
<b>Other adverse effects</b> no data available on mixture	

**SECTION 13 – DISPOSAL CONSIDERATIONS**

**Waste Disposal Method:**

Product :

Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Offer surplus and non-recyclable solutions to a licensed disposal company. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated Packaging**

Dispose of as unused product.

**SECTION 14 – TRANSPORTATION INFORMATION**

**Hazardous for Shipping:** Yes

**Based on 49 CFR, IATA and IMDG:**

**UN Number:** UN1263

**UN Proper Shipping Name:** Paint

**Hazard Class:** 3 **Packing Group:** II

**Labels:** Flammable Liquid

**Placards:** Flammable Liquid

**SECTION 15 – Regulatory Information**

**TSCA (Toxic Substances Control Act) Regulations, 40 CFR 710:** All hazardous ingredients are on the TSCA Chemical Substance Inventory.



Component	SARA 302	SARA 313	Massachusetts RTK	Pennsylvania RTK	New Jersey RTK	California Prop 65 list
Ethanol	No	No	Yes	Yes	Yes	No
Methyl Ethyl Ketone	No	No	Yes	Yes	Yes	No
Phenol	Yes	Yes	Yes	Yes	Yes	No
Methanol	No	Yes	Yes	Yes	Yes	No
Dimethyl Phthalate	No	Ye	Yes	Yes	Yes	No
Formaldehyde	Yes	Yes	Yes	Yes	Yes	Yes

**SARA 311 / 312 Hazards:** Flammable Hazard ,Acute Health Hazard, Chronic Health Hazard

**SECTION 16 – OTHER INFORMATION**

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