



M701-159 TUNG OIL

# MATERIAL SAFETY DATA SHEET

RPM Wood Finishes Group  
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Health: 1                      Flammability: 2                      Reactivity 0

PRODUCT NAME: M701-159 TUNG OIL

## I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

REVISION DATE: 16/10/03  
SUPERCEDES: 06/05/02  
MSDS NO. M701-159

## II. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	%	CAS #	PEL
aliphatic hydrocarbons	61-70	8052-41-3	500 ppm TWA; 2900 mg/m3 TWA
Tung oil	1-10	8001-20-5	No PEL established
ethylbenzene	<1	100-41-4	100 ppm TWA; 435 mg/m3 TWA
p-xylene	<1	106-42-3	No PEL established
o-xylene	<1	95-47-6	No PEL established
Triethylamine	<1	121-44-8	25 ppm TWA; 100 mg/m3 TWA
m-xylene	<1	108-38-3	No PEL established
Manganese Carboxylate(Mn Neodecanoate,Mn Propionat	<1	7439-96-5	compounds, as Mn: C 5 mg/m3; fume, as Mn: C 5 mg/m3
cobalt compounds (cobalt carboxylate)	<1	7440-48-4	0.1 mg/m3 TWA

## III. HAZARDS IDENTIFICATION

**Routes of Entry:** Eye contact., Inhalation., Skin contact., None Known., Absorption., Ingestion.  
**Medical Conditions Aggravated:** Kidney disease. Eye disease. Skin disease including eczema and sensitization.  
Respiratory disease including asthma and bronchitis. No medical conditions affected by exposure. Digestive tract disease. Liver disease.

**Immediate (Acute) Health Effects**

**Inhalation:** Can cause severe central nervous system depression (including unconsciousness). No hazard in normal industrial use. Causes respiratory tract irritation. Overexposure to processing fumes may cause metal fume fever which is an influenza like illness. Symptoms include headache, metallic taste in the mouth, cough, thirst, throat irritation, shortness of breath, fever, sweating and pain in the limbs. This illness is not permanent and recovery usually occurs within 24-48 hours after onset. Can cause severe respiratory irritation, dizziness, weakness, fatigue, nausea, headache and possible unconsciousness.

**Skin Contact:** Substance is corrosive. Causes severe skin burns. Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage. No hazard in normal industrial use.

**Eye Contact:** Can cause irritation. Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue. No hazard in normal industrial use.

**Skin Absorption:** Can be absorbed through the skin but exposure must be extensive before adverse health effects occur. A single exposure is not likely to result in the product being absorbed through the skin in harmful amounts. Toxic and may be harmful if absorbed through the skin; may produce target organ damage. Substance is harmful if absorbed through the skin. Large exposures may be fatal. Harmful if absorbed through the skin. May cause severe irritation and systemic damage.

**Ingestion:** Aspiration of material into the lungs can cause chemical pneumonitis which can be fatal. May cause vomiting. Harmful if swallowed. Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.

**Target Organ Acute Toxicity:**

Stoddard solvent	skin, eyes, CNS, respiratory system, kidneys
Ethyl benzene	eyes, respiratory system, skin, CNS
p-Xylene	CNS, eyes, blood, liver, kidneys, skin, GI tract, respiratory system
o-Xylene	CNS, eyes, blood, liver, kidneys, skin, GI tract, respiratory system
Triethylamine	skin, eyes, respiratory system, CVS, liver, kidney
m-Xylene	CNS, eyes, blood, liver, kidneys, skin, GI tract, respiratory system
Manganese compounds	respiratory system, CNS, blood, kidneys
Cobalt metal, dust and fume	respiratory system, skin

**Long-Term (Chronic) Health Effects:**

**Carcinogenicity:** ACGIH. IARC. NIOSH. NTP. OSHA. Contains a substance that is a probable cancer hazard based on human studies.

**Reproductive and Developmental Toxicity:** A component in this product has been shown to cause birth defects and reproductive disorders in laboratory animals at doses that could be encountered in the workplace. No data.

**Mutagenicity:** No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.

**Inhalation:** Upon prolonged and/or repeated exposure, can cause severe respiratory irritation, dizziness, weakness, fatigue, nausea, headache and possible unconsciousness.

<b>Skin Contact:</b>	May cause lingering affects but not likely to result in permanent damage if the exposure is eliminated. Prolonged contact with this product can cause reddening, swelling, rash, scaling, or blistering. In those who have developed skin sensitization, these symptoms can develop as a result of contact with a very small amount of the liquid material. Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
<b>Eye Contact:</b>	Upon prolonged or repeated contact, can cause severe irritation. Eye contact may result in corneal injury. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. Temporary vision impairment (cloudy or blurred vision) is possible.
<b>Skin Absorption:</b>	Contains methanol. Upon prolonged or repeated exposure, may cause deterioration of the optic nerve if large quantities are absorbed through the skin. Repeated absorption of large quantities may lead to blindness. Skin sensitization, characterized by redness, inflammation, itching and/or burning may result from prolonged or repeated contact with this material. Upon prolonged or repeated exposure, harmful if absorbed through the skin. May cause severe irritation and systemic damage.
<b>Target Organ Chronic Toxicity:</b>	Kidneys. Eyes. Skin. Nervous System. Respiratory Tract. Digestive Tract. Liver. Blood.
<b>Supplemental Health Hazard Information:</b>	No additional health information available.

#### **IV. FIRST AID**

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<b>Inhalation:</b>	Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately.
<b>Eyes:</b>	Immediately flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention and monitor the eye daily as advised by your physician.
<b>Skin Contact:</b>	Immediately flush skin with plenty of water. Remove clothing. Get medical attention immediately. Wash clothing separately from other articles before reuse. Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.
<b>Ingestion:</b>	Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this MSDS.
<b>Notes to MD:</b>	No additional first aid information available.

#### **V. FIRE FIGHTING MEASURES**

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##### **Flammability Summary:**

<b>Flash Point:</b>	125 (CALC.) °F
<b>Lower Flammable/Explosive Limit, % in air:</b>	1.1 @ 77° F

- Fire Hazards:** Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a Class B fire. Vapors are heavier than air and may travel to a source of ignition and flash back.
- Extinguishing Media:** Alcohol foam Sand. Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water spray or fog may also be effective for extinguishing if swept across the base of the fire. Water can also be used to absorb heat and keep exposed material from being damaged by fire.
- Fire Fighting Instructions:** Flammable component(s) of this material may be lighter than water and burn while floating on the surface. Use methods for the surrounding fire. Do not enter fire area without proper protection including self-contained toxic breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface. Use water spray/fog for cooling.
- Hazardous Combustion Products:** Carbon dioxide, Carbon monoxide

## VI. ACCIDENTAL RELEASE MEASURES

- Health Consideration for Spill Response:** No health effects expected from the clean-up of this material if contact can be avoided. Follow personal protective equipment recommendations found in Section VIII of this MSDS
- Spill Mitigation Procedures General Methods:** No special spill clean-up considerations. Collect and discard in regular trash.

## VII. HANDLING AND STORAGE

- Handling:** Follow all protective equipment recommendations provided in Section VIII. Use spark-proof tools and explosion-proof equipment. Wash thoroughly after handling. Avoid contact with material. Mildly irritating material. Avoid unnecessary exposure.
- Storage:** Keep away from sources of ignition. Store in a cool dry place away from ignition sources. Store in a cool dry place. Isolate from incompatible materials.

## VIII. ENGINEERING CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT

- Engineering Controls:** Check ventilation codes. Explosion proof exhaust ventilation should be used. Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.
- Protective Equipment Respiratory Tract:** Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2-1992). A written respiratory protection program, including provisions for medical certification, training, fit testing, exposure assessments, maintenance, inspection, cleaning, and convenient, sanitary storage should be implemented.
- Eyes:** Wear chemically resistant safety glasses with side shields when handling this product. Wear additional eye protection such as chemical splash goggles and/or face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material. Do not wear contact lenses. Have an eye wash station available.

**Skin:** Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

## IX. PHYSICAL DATA

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**Physical State:** COLORED LIQUID  
**Odor:** OILY HYDROCARBON  
**Solids Vol %:** 26.0891  
**Solids Wt %:** 32.8207  
**Material VOC lbs/gal:** 4.7553  
**Material VOC gms/l:** 571.0673  
**Coatings VOC lbs/gal:** 4.7553  
**Coatings VOC gms/l:** 571.0673  
**Weight per gallon:** 7.0946

## X. STABILITY AND REACTIVITY

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**Stability Information:** Stable. Stable under normal conditions.  
**Conditions to Avoid:** Avoid: heat, sparks, flame and oxidizing agents. Caustic amines, alkanamines and inorganic acids. Contact with water. None known.  
**Chemical Incompatibility:** Strong oxidizing agents. Strong acids. Water.  
**Hazardous Polymerization:** Hazardous Polymerization will not occur.

## XI. TOXICOLOGICAL INFORMATION

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Chemical Name	CAS Number	LD50/LC50
Benzene, ethyl-	100-41-4	Oral LD50 Rat : 3500 mg/kg; Dermal LD50 Rabbit : 17800 uL/kg
p-Xylene	106-42-3	Inhalation LC50 Rat : 4550 ppm/4H; Oral LD50 Rat : 5 gm/kg
Triethylamine	121-44-8	Inhalation LC50 Mouse : 6 gm/m <sup>3</sup> ; Oral LD50 Rat : 460 mg/kg; Oral LD50 Mouse : 546 mg/kg; Dermal LD50 Rabbit : 570 uL/kg
m-Xylene	108-38-3	Oral LD50 Rat : 5 gm/kg; Dermal LD50 Rabbit : 14100 uL/kg
Manganese	7439-96-5	Oral LD50 Rat : 9 gm/kg
Cobalt	7440-48-4	Oral LD50 Rat : 6171 mg/kg

## XII. ECOLOGICAL INFORMATION

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**Overview (for ingredients):** No data available. This material is not expected to be harmful to the ecology.

## XIII. DISPOSAL CONSIDERATIONS

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**Waste Description for Spent Product:** The waste may be a characteristic hazardous waste. Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures. Spent or discarded material is a hazardous waste.

**Disposal Methods:** Comply with all Local, State, Federal, and Provincial Environmental Regulations. Dispose of by incineration following Federal, State, Local, or Provincial regulations.

**Potential EPA Waste Codes:** If discarded, this product is considered a RCRA ignitable waste, D001.

### Components Subject to USEPA Land Disposal Restrictions:

Ethyl benzene	100-41-4	0.98 %
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**XIV. TRANSPORTATION INFORMATION**

**DOT** Flammable liquids, n.o.s., 3, UN 1993, III (contains )

**XV. REGULATORY INFORMATION**

<b>Chemical Name</b>	<b>Regulation</b>	<b>CASRN</b>	<b>%</b>
Ethyl benzene	SARA 313 Reportable:	100-41-4	0.98
p-Xylene	SARA 313 Reportable:	106-42-3	0.6
o-Xylene	SARA 313 Reportable:	95-47-6	0.25
Triethylamine	SARA 313 Reportable:	121-44-8	0.2
m-Xylene	SARA 313 Reportable:	108-38-3	0.15
Manganese	SARA 313 Reportable:	7439-96-5	0.07
Cobalt	SARA 313 Reportable:	7440-48-4	0.06
Cobalt metal powder	California Proposition 65 Cancer List:	7440-48-4	0.06
aliphatic hydrocarbons	New Jersey Right To Know:	8052-41-3	63.48
Alkyd Resin	New Jersey Right To Know:	PROPRIETARY	24.75
Tung oil	New Jersey Right To Know:	8001-20-5	7.8
ethylbenzene	New Jersey Right To Know:	100-41-4	0.98
p-xylene	New Jersey Right To Know:	106-42-3	0.6
Methyl Ethyl Ketoxime	New Jersey Right To Know:	96-29-7	0.6
o-xylene	New Jersey Right To Know:	95-47-6	0.25

**XVI. ADDITIONAL INFORMATION****Other Information:**

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MSDS glossary.