



M612-2410 DuraCoat Pre-Catalyzed Lacquer Flat 10 - 275 VOC

MATERIAL SAFETY DATA SHEET

RPM Wood Finishes Group
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Health: 2 Flammability: 3 Reactivity 0

PRODUCT NAME: M612-2410 DuraCoat Pre-Catalyzed Lacquer Flat 10 - 275 VOC

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

REVISION DATE: 02/11/05
SUPERCEDES: 01/11/05
MSDS NO. M612-2410
OSHA HAZ. CLASS: Hepatotoxin - may cause liver damage. Nephrotoxin - may cause kidney damage.

II. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	%	CAS #	PEL
acetone	51-60	67-64-1	1000 ppm TWA; 2400 mg/m3 TWA
p-chlorobenzotrifluoride	11-20	98-56-6	No PEL established
Cellulose Nitrate, Cellulose Ester	1-10	9004-70-0	No PEL established
butylated urea formaldehyde resin	1-10	proprietary	No PEL established
diisononyl phthalate	1-10	68515-48-0	No PEL established
butyl cellosolve	1-10	111-76-2	50 ppm TWA; 240 mg/m3 TWA
butanol	1-10	78-92-2	150 ppm TWA; 450 mg/m3 TWA
amorphous silica	1-10	112926-00-8	see Table Z-3
1,2,4-trimethylbenzene	<1	95-63-6	No PEL established
m-xylene	<1	108-38-3	No PEL established
formaldehyde	<1	50-00-0	0.75 ppm TWA
toluene	<1	108-88-3	200 ppm TWA; C 300 ppm
ethylbenzene	<1	100-41-4	100 ppm TWA; 435 mg/m3 TWA
o-xylene	<1	95-47-6	No PEL established
p-xylene	<1	106-42-3	No PEL established

III. HAZARDS IDENTIFICATION

Routes of Entry: Inhalation, ingestion, skin, eyes., Absorption.
Medical Conditions Aggravated: Pre-existing skin or respiratory conditions. Skin disease including eczema and sensitization. Eye disease. Digestive tract disease. Liver disease. Kidney disease.

Immediate (Acute) Health Effects

Inhalation:	Can cause severe central nervous system depression (including unconsciousness). Causes respiratory tract irritation. High concentrations in immediate area can displace oxygen and can cause dizziness, unconsciousness, and even death with longer exposure. Can cause severe respiratory irritation, dizziness, weakness, fatigue, nausea, headache and possible unconsciousness.
Skin Contact:	Substance causes moderate skin irritation. Continued or prolonged contact may irritate the skin and cause a skin rash (dermatitis). Moderately irritating to the skin. Can cause minor skin irritation, defatting, and dermatitis.
Eye Contact:	Can cause irritation. Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue. Contact with the eyes may cause moderate to severe eye injury. Eye contact may result in tearing and reddening, but not likely to permanently injure eye tissue. Temporary vision impairment (cloudy or blurred vision) is possible.
Skin Absorption:	Harmful if absorbed through the skin. Toxic and may be harmful if absorbed through the skin; may produce target organ damage. Can be absorbed through the skin but exposure must be extensive before adverse health effects occur. Minimal hazard in normal industrial use. May cause gastrointestinal discomfort.
Ingestion:	Harmful if swallowed. Minimal toxicity. Aspiration of material into the lungs can cause chemical pneumonitis which can be fatal. Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.
Target Organ Acute Toxicity:	
Acetone	respiratory system, skin, eyes, CNS
2-Butoxyethanol	liver, kidneys, lymphoid system, skin, blood, eyes, respiratory system, CNS, hemato system
n-Butyl alcohol	eyes, CNS, skin, respiratory system
1,2,4-Trimethylbenzene	eyes, skin, respiratory system, CNS, blood
m-Xylene	CNS, eyes, blood, liver, kidneys, skin, GI tract, respiratory system
Formaldehyde (and formalin)	eyes, skin, respiratory system, nasal cancer
Toluene	CNS, liver, kidneys, skin, eyes, respiratory system
Ethyl benzene	eyes, respiratory system, skin, CNS
o-Xylene	CNS, eyes, blood, liver, kidneys, skin, GI tract, respiratory system
p-Xylene	CNS, eyes, blood, liver, kidneys, skin, GI tract, respiratory system

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. Possible reproductive hazard.
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.

Skin Contact:	Prolonged or repeated contact may cause irritation. May cause lingering effects but not likely to result in permanent damage if the exposure is eliminated. Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Eye Contact:	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.
Skin Absorption:	Upon prolonged or repeated exposure, toxic if absorbed through the skin. Likely to cause systemic damage.
Target Organ Chronic Toxicity:	Respiratory Tract. Central nervous system stimulation. Kidneys. Liver. Skin. Eyes. Nervous System. Digestive Tract. Liver. Kidneys. Blood.
Supplemental Health Hazard Information:	No additional health information available.

IV. FIRST AID

Inhalation:	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.
Eyes:	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.
Skin Contact:	Wash with mild soap and water. If irritation occurs get medical attention. If clothing is contaminated, remove and wash before reuse. Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.
Ingestion:	If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting. 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. If swallowed, have a trained medical professional induce vomiting immediately. Never give anything by mouth to an unconscious person.
Notes to MD:	No additional first aid information available.

V. FIRE FIGHTING MEASURES

Flammability Summary:

Flash Point:	-4 (CALC.) °F
Upper Flammable/Explosive Limit, % in air:	36.0 @ 77° F
Lower Flammable/Explosive Limit, % in air:	2.0 @ 77° F

Fire Hazards: Flammable Liquid. Can release vapors that form explosive mixtures at temperatures at or above the flash point. Vapors are heavier than air and can travel to a source of ignition and flash back. Combustible Liquid. Can form explosive mixtures at temperatures at or above the flash point. Empty containers that retain product residue (liquid, solid/sludge, or vapor) can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose container to heat, flame, sparks, static electricity, or other sources of ignition. Any of these actions can potentially cause an explosion that may lead to injury or death. Container may explode in heat of fire. Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.

Extinguishing Media: Use alcohol resistant spray, Carbon Dioxide, water spray or dry chemical to extinguish a fire involving this chemical. Flammable component(s) of this material may be lighter than water and burn while floating on the surface. Foam 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. 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 Hydrogen cyanide Nitrogen containing gases

VI. ACCIDENTAL RELEASE MEASURES

Health Consideration for Spill Response: Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section VIII of this MSDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill.

Spill Mitigation Procedures General Methods: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section VIII at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

VII. HANDLING AND STORAGE

Handling: Use spark-proof tools and explosion-proof equipment. Wash thoroughly after handling. Avoid contact with material. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. Remove contaminated clothing and wash before reuse. Ground and bond containers when transferring material. Use bonding and grounding when transferring quantities of material. Harmful or irritating material. Avoid contact and avoid breathing the material. Use only in a well ventilated area.

Storage: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a cool place in original container and protect from sunlight. Do not store in direct sunlight. Keep container closed when not in use. Keep away from heat and flame. Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed.

VIII. ENGINEERING CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT

Engineering Controls: Ventilation should effectively remove and prevent buildup of any vapor/mist/fume generated from the handling of this product. 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

Physical State:	CLOUDY LIQUID
Odor:	STRONG SOLVENT
Solids Vol %:	18.9558
Solids Wt %:	25.6269
Material VOC lbs/gal:	0.579
Material VOC gms/l:	69.5276
Coatings VOC lbs/gal:	2.1406
Coatings VOC gms/l:	257.0643
Weight per gallon lbs:	7.8904

VOC data per US EPA guidelines. State and local variations may apply.

X. STABILITY AND REACTIVITY

Stability Information: Stable. Normally stable. Keep away from heat, sparks and flame.

Conditions to Avoid: Avoid: heat, sparks, flame and oxidizing agents. None known.

Chemical Incompatibility: Strong oxidizing agents. Strong acids. Amines. Strong alkalies. Oxidizing materials. Peroxides. Acids. Acetic anhydride.

Hazardous Polymerization: Hazardous Polymerization will not occur.

XI. TOXICOLOGICAL INFORMATION

Chemical Name	CAS Number	LD50/LC50
Acetone	67-64-1	Inhalation LC50 Rat : 50100 mg/m3/8H; Inhalation LC50 Mouse : 44 gm/m3/4H; Oral LD50 Rat : 5800 mg/kg; Oral LD50 Mouse : 3 gm/kg
Toluene, p-chloro-alpha,alpha,alpha-trifluoro-	98-56-6	Inhalation LC50 Rat : 22 gm/m3; Inhalation LC50 Mouse : 20 gm/m3; Oral LD50 Rat : 13 gm/kg; Oral LD50 Mouse : 11500 mg/kg
Nitrocellulose	9004-70-0	Oral LD50 Rat : >5 gm/kg; Oral LD50 Mouse : >5 gm/kg
Ethanol, 2-butoxy-	111-76-2	Inhalation LC50 Rat : 450 ppm/4H; Inhalation LC50 Mouse : 700 ppm/7H; Oral LD50 Rat : 470 mg/kg; Oral LD50 Mouse : 1230 mg/kg; Dermal LD50 Rabbit : 220 mg/kg
sec-Butyl alcohol	78-92-2	Inhalation LC50 Rat : 8000 ppm/4H; Oral LD50 Rat : 790 mg/kg; Oral LD50 Mouse : 2680 mg/kg; Dermal LD50 Rabbit : 3400 mg/kg
Benzene, 1,2,4-trimethyl-m-Xylene	95-63-6 108-38-3	Inhalation LC50 Rat : 18 gm/m3/4H; Oral LD50 Rat : 5 gm/kg Oral LD50 Rat : 5 gm/kg; Dermal LD50 Rabbit : 14100 uL/kg
Formaldehyde	50-00-0	Inhalation LC50 Rat : 203 mg/m3; Inhalation LC50 Mouse : 454 gm/m3/4H; Oral LD50 Rat : 100 mg/kg; Oral LD50 Mouse : 42 mg/kg; Dermal LD50 Rabbit : 270 uL/kg
Toluene	108-88-3	Inhalation LC50 Rat : 49 gm/m3/4H; Inhalation LC50 Mouse : 400 ppm/24H; Oral LD50 Rat : 636 mg/kg; Dermal LD50 Rabbit : 14100 uL/kg
Benzene, ethyl-p-Xylene	100-41-4 106-42-3	Oral LD50 Rat : 3500 mg/kg; Dermal LD50 Rabbit : 17800 uL/kg Inhalation LC50 Rat : 4550 ppm/4H; Oral LD50 Rat : 5 gm/kg

XII. ECOLOGICAL INFORMATION

Overview (for ingredients): Keep out of waterways. No ecological information available.

XIII. DISPOSAL CONSIDERATIONS

Waste Description for Spent Product: The waste may be a listed and/or characteristic hazardous waste. 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:

Acetone	67-64-1	52.6 %
n-Butyl alcohol	78-92-2	2.82 %
Toluene	108-88-3	0.05 %
Ethyl benzene	100-41-4	0.03 %

XIV. TRANSPORTATION INFORMATION

DOT Paint, 3, UN 1263, II
See 49CFR 172.101 for Special Provisions, Packaging, and Quantity Limitations.

XV. REGULATORY INFORMATION

Chemical Name	Regulation	CASRN	%
2-Butoxyethanol	SARA 313 Reportable:	111-76-2	3.03
sec-Butyl alcohol	SARA 313 Reportable:	78-92-2	2.82
1,2,4-Trimethylbenzene	SARA 313 Reportable:	95-63-6	0.21
m-Xylene	SARA 313 Reportable:	108-38-3	0.07
Formaldehyde	SARA 313 Reportable:	50-00-0	0.05
Toluene	SARA 313 Reportable:	108-88-3	0.05
Ethyl benzene	SARA 313 Reportable:	100-41-4	0.03
o-Xylene	SARA 313 Reportable:	95-47-6	0.03

p-Xylene	SARA 313 Reportable:	106-42-3	0.02
Phosphoric acid	SARA 313 Reportable:	7664-38-2	0.00
Benzene	SARA 313 Reportable:	71-43-2	0.00
Formaldehyde	Extremely Haz. Substances:	50-00-0	0.05
TPQ = 500 pounds; RQ = 100 pounds (does not meet toxicity criteria but because of high production volume and recognized toxicity is considered a chemical of concern)	SARA Threshold Planning Quantity:	50-00-0	0.05
Formaldehyde (gas)	California Proposition 65 Cancer List:	50-00-0	0.05
Benzene, methyl-	California Proposition 65 Cancer List:	108-88-3	0.05
Benzene, ethyl-	California Proposition 65 Cancer List:	100-41-4	0.03
Benzene	California Proposition 65 Cancer List:	71-43-2	0.00
Quartz	California Proposition 65 Cancer List:	14808-60-7	0.00
Toluene	California Proposition 65	108-88-3	0.05
	Developmental Toxicity:		
Benzene	California Proposition 65	71-43-2	0.00
	Developmental Toxicity:		
Benzene	California Proposition 65 Reproductive - Female:	71-43-2	0.00
acetone	New Jersey Right To Know:	67-64-1	52.6
p-chlorobenzotrifluoride	New Jersey Right To Know:	98-56-6	14.41
Cellulose Nitrate, Cellulose Ester	New Jersey Right To Know:	9004-70-0	7.36
butylated urea formaldehyde resin	New Jersey Right To Know:	proprietary	4.31
diisononyl phthalate	New Jersey Right To Know:	68515-48-0	3.54

XVI. ADDITIONAL INFORMATION

Other Information:

IMPORTANT: WHILE THE DESCRIPTIONS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE, IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU PERFORM AN ASSESSMENT TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED, DATA OR INFORMATION SET FORTH. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, OR DATA PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, THE DESCRIPTIONS, DATA AND INFORMATION FURNISHED HEREUNDER ARE GIVEN GRATIS. NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DATA AND INFORMATION GIVEN ARE ASSUMED. ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK.

MSDS glossary.