



M610-151 HC PRECATALYZED LACQUER SATIN

MATERIAL SAFETY DATA SHEET

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FOR ALL INTERNATIONAL TRANSPORTATION ACCIDENTS. 1-703-527-3887 (collect)

Health: 2 Flammability: 3 Reactivity 0

PRODUCT NAME: M610-151 HC PRECATALYZED LACQUER SATIN

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

REVISION DATE: 27/01/04
SUPERCEDES: 26/01/04
MSDS NO. M610-1517
OSHA HAZ. CLASS: Eye irritant. Neurotoxin - may cause nervous system damage.
Mucous membrane (respiratory tract) irritant.

II. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	%	CAS #	PEL
n-butyl acetate	21-30	123-86-4	150 ppm TWA; 710 mg/m3 TWA
isobutanol	11-20	78-83-1	100 ppm TWA; 300 mg/m3 TWA
aliphatic petroleum distillates	1-10	64742-89-8	No PEL established
Cellulose Nitrate, Cellulose Ester	1-10	9004-70-0	No PEL established
isopropanol	1-10	67-63-0	400 ppm TWA; 980 mg/m3 TWA
alkyd resin solids	1-10	PROPRIETARY	No PEL established
toluene	1-10	108-88-3	200 ppm TWA; C 300 ppm
Urea resin Non Volatile	1-10	proprietary	No PEL established
acetone	1-10	67-64-1	1000 ppm TWA; 2400 mg/m3 TWA
m-xylene	1-10	108-38-3	No PEL established
butanol	1-10	78-92-2	150 ppm TWA; 450 mg/m3 TWA
propylene glycol monomethyl ether	1-10	107-98-2	No PEL established
o-xylene	1-10	95-47-6	No PEL established
ethylbenzene	1-10	100-41-4	100 ppm TWA; 435 mg/m3 TWA
p-xylene	<1	106-42-3	No PEL established
formaldehyde	<1	50-00-0	0.75 ppm TWA

III. HAZARDS IDENTIFICATION

Routes of Entry: Eye contact., Skin contact., Inhalation., Absorption., Ingestion.
Medical Conditions Aggravated: Skin disease including eczema and sensitization. Respiratory disease including asthma and bronchitis. Eye disease. Kidney disease. Liver disease. Digestive tract disease.

Immediate (Acute) Health Effects

- Inhalation:** Irritation may be delayed for several hours. Can cause severe respiratory irritation, dizziness, weakness, fatigue, nausea, headache and possible unconsciousness.
- Skin Contact:** Substance causes moderate skin irritation. Moderately irritating to the skin. Can cause minor skin irritation, defatting, and dermatitis.
- Eye Contact:** Irritating but will not permanently injure eye tissue. 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:** Component(s) may be absorbed through intact skin, but it is unlikely that harmful effects will occur unless contact is prolonged, repeated, and extensive. Can be absorbed through the skin but exposure must be extensive before adverse health effects occur. Toxic and may be harmful if absorbed through the skin; may produce target organ damage. Minimal hazard in normal industrial use. May cause gastrointestinal discomfort.
- Ingestion:** 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:

n-Butyl acetate	eyes, skin, respiratory system, CNS
Isobutyl alcohol	eyes, skin, respiratory system, CNS
Isopropyl alcohol	eyes, skin, respiratory system
Toluene	CNS, liver, kidneys, skin, eyes, respiratory system
Acetone	respiratory system, skin, eyes, CNS
m-Xylene	CNS, eyes, blood, liver, kidneys, skin, GI tract, respiratory system
n-Butyl alcohol	eyes, CNS, skin, respiratory system
Propylene glycol monomethyl ether	eyes, skin, respiratory system, CNS
o-Xylene	CNS, eyes, blood, liver, kidneys, skin, GI tract, respiratory system
Ethyl benzene	eyes, respiratory system, skin, CNS
p-Xylene	CNS, eyes, blood, liver, kidneys, skin, GI tract, respiratory system
Formaldehyde (and formalin)	eyes, skin, respiratory system, nasal cancer

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:** Possible reproductive hazard. 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.
- 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 affects 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:	Skin. Respiratory Tract. Nervous System. Eyes. Nervous System. Eyes. Respiratory Tract. Skin. Kidneys. Liver. Digestive Tract. 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 soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.
Ingestion:	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.
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:	0.8 @ 77° F

Fire Hazards: 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. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures at or above the flash point. If product is heated above its flash point it will release flammable vapors which can burn in the open or be explosive in confined spaces if exposed to ignition source. 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 foam, carbon dioxide, or water spray when fighting fires involving this material. Dry chemical Flammable component(s) of this material may be lighter than water and burn while floating on the surface. 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 Toxic gases 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: Wash thoroughly after handling. Avoid contact with material. Use spark-proof tools and explosion-proof equipment. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. Remove contaminated clothing and wash before reuse. Harmful or irritating material. Avoid contact and avoid breathing the material. Use only in a well ventilated area.

Storage: Keep away from sources of ignition. Store in a cool place in original container and protect from sunlight. Keep away from heat, sparks, 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: Explosion proof exhaust ventilation should be used. Ventilation should effectively remove and prevent buildup of any vapor/mist/fume generated from the handling of this product. 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 %:	17.5914
Solids Wt %:	24.577
Material VOC lbs/gal:	5.362
Material VOC gms/l:	643.9244
Coatings VOC lbs/gal:	5.6139
Coatings VOC gms/l:	674.1852
Weight per gallon:	7.5193

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 alkalis. Strong acids. Strong oxidizing agents. Amines. Acids. Acetic anhydride. Peroxides. Oxidizing materials.

Hazardous Polymerization: Hazardous Polymerization will not occur.

XI. TOXICOLOGICAL INFORMATION

Chemical Name	CAS Number	LD50/LC50
Acetic acid, butyl ester	123-86-4	Inhalation LC50 Rat : 2000 ppm/4H; Inhalation LC50 Mouse : 6 gm/m3/2H; Oral LD50 Rat : 10768 mg/kg; Oral LD50 Mouse : 6 gm/kg; Dermal LD50 Rabbit : >17600 mg/kg
Isobutyl alcohol	78-83-1	Oral LD50 Rat : 2460 mg/kg; Dermal LD50 Rabbit : 3400 mg/kg
Nitrocellulose	9004-70-0	Oral LD50 Rat : >5 gm/kg; Oral LD50 Mouse : >5 gm/kg
Isopropyl alcohol	67-63-0	Inhalation LC50 Rat : 16000 ppm/8H; Oral LD50 Rat : 5045 mg/kg; Oral LD50 Mouse : 3600 mg/kg; Dermal LD50 Rabbit : 12800 mg/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
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
m-Xylene	108-38-3	Oral LD50 Rat : 5 gm/kg; Dermal LD50 Rabbit : 14100 uL/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
2-Propanol, 1-methoxy-	107-98-2	Inhalation LC50 Rat : 10000 ppm/5H; Oral LD50 Mouse : 11700 mg/kg; Dermal LD50 Rabbit : 13 gm/kg
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
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

XII. ECOLOGICAL INFORMATION

Overview (for ingredients): No data available. Slight ecological hazard. In high concentrations, this product may be dangerous to plants and/or wildlife.

XIII. DISPOSAL CONSIDERATIONS

Waste Description for Spent Product: 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:

Isobutyl alcohol	78-83-1	17.2 %
Toluene	108-88-3	4.45 %
Acetone	67-64-1	3.92 %
n-Butyl alcohol	78-92-2	2.35 %
Ethyl benzene	100-41-4	1.1 %

XIV. TRANSPORTATION INFORMATION

DOT PAINT, 3, UN 1263, II

XV. REGULATORY INFORMATION

Chemical Name	Regulation	CASRN	%
Isopropyl alcohol	SARA 313 Reportable:	67-63-0	6.74
Toluene	SARA 313 Reportable:	108-88-3	4.45
m-Xylene	SARA 313 Reportable:	108-38-3	3.00
sec-Butyl alcohol	SARA 313 Reportable:	78-92-2	2.35
o-Xylene	SARA 313 Reportable:	95-47-6	1.24
Ethyl benzene	SARA 313 Reportable:	100-41-4	1.1
p-Xylene	SARA 313 Reportable:	106-42-3	0.77
Formaldehyde	SARA 313 Reportable:	50-00-0	0.15
Phosphoric acid	SARA 313 Reportable:	7664-38-2	0.00

Formaldehyde 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)	Extremely Haz. Substances: SARA Threshold Planning Quantity:	50-00-0 50-00-0	0.15 0.15
Formaldehyde (gas)	California Proposition 65 Cancer List:	50-00-0	0.15
Toluene	California Proposition 65 Developmental Toxicity:	108-88-3	4.45
n-butyl acetate	New Jersey Right To Know:	123-86-4	23.4
isobutanol	New Jersey Right To Know:	78-83-1	17.2
aliphatic petroleum distillates	New Jersey Right To Know:	64742-89-8	9.18
Cellulose Nitrate, Cellulose Ester	New Jersey Right To Know:	9004-70-0	8.52
isopropanol	New Jersey Right To Know:	67-63-0	6.74

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.