

# SAFETY DATA SHEET

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## SECTION 1) CHEMICAL PRODUCT AND SUPPLIER'S IDENTIFICATION

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**Product ID:** MIRA 710X  
**Product Name:** MIRAVAR CATALYST  
**Revision Date:** Apr 28, 2017 **Date Printed:** Apr 28, 2017  
**Version:** 1.0 **Supersedes Date:** N.A.  
**Manufacturer's Name:** Repcolite Paints, Inc.  
**Address:** 473 West 17th Street Holland, MI, US, 49423  
**Emergency Phone:** 800-535-5053  
**Information Phone Number:** 616-396-1275  
**Fax:** 616-396-9654

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## SECTION 2) HAZARDS IDENTIFICATION

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### Classification:

Specific Target Organ Toxicity - Single Exposure - Category 1  
Skin Irritation - Category 2  
Serious Eye Damage - Category 1  
Reproductive Toxicity - Category 2  
Flammable Liquids Category 2  
Corrosive to metals Category 1  
Acute toxicity Dermal Category 4  
Acute toxicity Inhalation Vapor Category 4  
Acute toxicity Oral Category 4

### Pictograms:



### Signal Word:

Danger

### Hazardous Statements - Physical:

H290 - May be corrosive to metals  
H225 - Highly flammable liquid and vapor

### Hazardous Statements - Health:

H370 - Causes damage to organs  
H314 - Causes severe skin burns and eye damage  
H361 - Suspected of damaging fertility or an unborn child.  
H302 - Harmful if swallowed  
H312 - Harmful in contact with skin

**Precautionary Statements - General:**

- P101 - If medical advice is needed, have product container or label at hand.
- P102 - Keep out of reach of children.
- P103 - Read label before use.

**Precautionary Statements - Prevention:**

- P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
- P264 - Wash thoroughly after handling.
- P270 - Do not eat, drink or smoke when using this product.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P234 - Keep only in original packaging.
- P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P233 - Keep container tightly closed.
- P240 - Ground/bond container and receiving equipment.
- P241 - Use explosion-proof [electrical/ventilating/lighting/...] equipment.
- P242 - Use only non-sparking tools.
- P243 - Take action to prevent static discharges.
- P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
- P271 - Use only outdoors or in a well-ventilated area.

**Precautionary Statements - Response:**

- P308 + P311 - IF exposed or concerned: Call a POISON CENTER/doctor.
- P321 - For specific treatment see section 4.
- P302 + P352 - IF ON SKIN: Wash with plenty of water.
- P332 + P313 - If skin irritation occurs: Get medical advice/attention.
- P362 + P364 - Take off contaminated clothing. And wash it before reuse.
- P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 - Immediately call a POISON CENTER or doctor.
- P308 + P313 - IF exposed or concerned: Get medical advice/attention.
- P390 - Absorb spillage to prevent material damage.
- P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
- P370 + P378 - In case of fire: Use dry chemical, foam, or carbon dioxide to extinguish.
- P301 + P312 - IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
- P330 - Rinse mouth.
- P312 - Call a POISON CENTER/doctor if you feel unwell.
- P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

**Precautionary Statements - Storage:**

- P405 - Store locked up.
- P406 - Store in a corrosive resistant container with a resistant inner liner.
- P403 + P235 - Store in a well-ventilated place. Keep cool.

**Precautionary Statements - Disposal:**

- P501 - Dispose of contents/container to disposal recycling center. Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state and local laws.

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**SECTION 3) COMPOSITION / INFORMATION ON INGREDIENTS**

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CAS	Chemical Name	% By Weight
0000104-15-4	P-TOLUENESULFONIC ACID	47% - 79%
0000067-56-1	METHANOL	11% - 25%
0000067-63-0	ISOPROPYL ALCOHOL	11% - 25%
0007664-38-2	PHOSPHORIC ACID	0.2% - 3%

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## SECTION 4) FIRST-AID MEASURES

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### Inhalation:

Remove source of exposure or move person to fresh air and keep comfortable for breathing.

If exposed or unwell : Call a POISON CENTER/doctor

### Skin Contact:

Take off immediately contaminated clothing. Rinse skin with water/shower and mild soap for 5 minutes or until product is removed. Store contaminated clothing under water and wash before re-use or discard.

### Eye Contact:

Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for 15-20 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists: Get medical advice/attention.

### Ingestion:

Rinse mouth. If you feel unwell or are concerned : Get medical advice/attention.

### Most Important Symptoms and Effects, Both Acute and Delayed:

No data available.

### Indication of Any Immediate Medical Attention and Special Treatment Needed:

No data available.

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## SECTION 5) FIRE-FIGHTING MEASURES

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### Suitable Extinguishing Media:

Dry chemical, foam, or carbon dioxide is recommended. Water spray is recommended to cool or protect exposed materials or structures. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

### Unsuitable Extinguishing Media:

No data available.

### Specific Hazards in Case of Fire:

Vapors are heavier than air and may travel along the ground to ignition sources at locations distant from material handling point.

Vapor accumulations and spray mist may flash or explode if ignited.

Closed containers may rupture due to pressure buildup when exposed to extreme heat.

Dried solids can burn.

### Fire-fighting Procedures:

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Water may be ineffective but can be used to cool containers exposed to heat or flame. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid.

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

### Special Protective Actions:

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

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## SECTION 6) ACCIDENTAL RELEASE MEASURES

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### Emergency Procedure:

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Do not touch or walk through spilled material.

Isolate hazard area and keep unnecessary people away. Remove all possible sources of ignition in the surrounding area. Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

If spilled material is cleaned up using a regulated solvent, the resulting waste mixture may be regulated.

**Recommended Equipment:**

Positive pressure, full-face piece self-contained breathing apparatus SCBA), or positive pressure supplied air respirator with escape SCBA (NIOSH approved).

**Personal Precautions:**

Avoid breathing vapor. Avoid contact with skin, eye or clothing. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

**Environmental Precautions:**

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

**Methods and Materials for Containment and Cleaning up:**

Absorb spill with inert absorbent.  
Dike area to contain spill.

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**SECTION 7) HANDLING AND STORAGE**

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**General:**

Wash hands after use.  
Do not get in eyes, on skin or on clothing.  
Do not breathe vapors or mists.  
Use good personal hygiene practices.  
Eating, drinking and smoking in work areas is prohibited.  
Remove contaminated clothing and protective equipment before entering eating areas.  
Eyewash stations and showers should be available in areas where this material is used and stored.

**Ventilation Requirements:**

Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source.

**Storage Room Requirements:**

Keep container(s) tightly closed and properly labeled. Store in cool, dry, well-ventilated areas away from heat, direct sunlight, strong oxidizers and any incompatibilities. Store in approved containers and protect against physical damage. Keep containers securely sealed when not in use. Indoor storage should meet OSHA standards and appropriate fire codes. Containers that have been opened must be carefully resealed to prevent leakage. Empty containers retain residue and may be dangerous.  
Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored.  
Ground and bond containers and receiving equipment. Avoid static electricity by grounding.

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**SECTION 8) EXPOSURE CONTROLS, PERSONAL PROTECTION**

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**Eye Protection:**

Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids. If additional protection is needed for entire face, use in combination with a face shield.

**Skin Protection:**

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber is recommended to avoid skin sensitization. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

**Respiratory Protection:**

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed. Check with respiratory protective equipment suppliers.

**Appropriate Engineering Controls:**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.  
A suitable, NIOSH-approved respirator and goggles should be worn when standing or grinding objects coated with this paint.

Chemical Name	OSHA TWA (ppm)	OSHA TWA (mg/m3)	OSHA STEL (ppm)	OSHA STEL (mg/m3)	OSHA Tables (Z1, Z2, Z3)	OSHA Carcinogen	OSHA Skin designation	NIOSH TWA (ppm)	NIOSH TWA (mg/m3)	NIOSH STEL (ppm)	NIOSH STEL (mg/m3)	NIOSH Carcinogen
ISOPROPYL ALCOHOL	400	980			1			400	980	500	1225	

METHANOL	200	260			1			200	260	250	325	
PHOSPHORIC ACID		1			1				1		3	

Chemical Name	ACGIH TWA (ppm)	ACGIH TWA (mg/m3)	ACGIH STEL (ppm)	ACGIH STEL (mg/m3)	ACGIH Carcinogen	ACGIH Notations	ACGIH TLV Basis
ISOPROPYL ALCOHOL	200		400		A4	A4;BEI	Eye & URT irr; CNS impair
METHANOL	200	262	250	328		Skin; BEI	Headache, eye dam
PHOSPHORIC ACID		1		3			URT, eye, & skin irr

A4 - Not Classifiable as a Human Carcinogen, BEI - Substances for which there is a Biological Exposure Index or Indices, CNS - Central nervous system, dam - Damage, impair - Impairment, irr - Irritation, URT - Upper respiratory tract

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## SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

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### Physical and Chemical Properties

Specific Gravity (g/cm3)	1.10201
Density	9.19671 lb/gal
% Solids By Weight	64.60180%
% VOC	35.39824%
Density VOC	3.25547 lb/gal
VOC Regulatory	3.25547 lb/gal
VOC Regulatory	390.10329 g/l

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Appearance	N/A
Odor Threshold	N/A
Odor Description	N/A
pH	N/A
Water Solubility	N/A
Flammability	N/A
Flash Point Symbol	N/A
Flash Point	N/A
Viscosity	N/A
Lower Explosion Level	N/A
Upper Explosion Level	N/A
Vapor Pressure	N/A
Vapor Density	N/A
Freezing Point	N/A
Melting Point	N/A
Low Boiling Point	N/A
High Boiling Point	N/A
Auto Ignition Temp	N/A
Decomposition Pt	N/A
Evaporation Rate	N/A
Coefficient Water/Oil	N/A

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## SECTION 10) STABILITY AND REACTIVITY

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### Stability:

Stable.

### Conditions to Avoid:

Excessive heat.

**Hazardous Reactions/Polymerization:**

No data available.

**Incompatible Materials:**

Strong oxidizers.

**Hazardous Decomposition Products:**

May produce fumes when heated to decomposition.

Fumes may contain carbon monoxide and carbon dioxide.

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**SECTION 11) TOXICOLOGICAL INFORMATION**

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**Likely route of exposure:**

Ingestion, Inhalation, Skin absorption

**Skin Corrosion/Irritation:**

Causes skin irritation

**Serious Eye Damage/Irritation:**

Causes serious eye damage

**Respiratory/Skin Sensitization:**

No Data Available

**Germ Cell Mutagenicity:**

No Data Available

**Carcinogenicity:**

No Data Available

**Reproductive Toxicity:**

Suspected of damaging fertility or an unborn child.

**Specific Target Organ Toxicity - Single Exposure:**

Causes damage to organs

**Specific Target Organ Toxicity - Repeated Exposure:**

No Data Available

**Aspiration Hazard:**

No Data Available

**Acute Toxicity:**

No Data Available

0000067-56-1           METHANOL

LC50 (rat): 64000 ppm (4-hour exposure) (14, unconfirmed)

LD50 (oral, rat): 5628 mg/kg (14, unconfirmed)

LD50 (oral, 14-day old rat): 5850 mg/kg (cited as 7.4 mL/kg) (15)

LD50 (oral, young adult rat): 10280 mg/kg (cited as 13.0 mL/kg) (15)

LD50 (oral, monkey): 3000 mg/kg (1/1 animal died) (16) LD50 (dermal, rabbit): 15800 mg/kg (cited as 20 mL/kg) (17 citing unpublished information)

0000067-63-0           ISOPROPYL ALCOHOL

LC50 (rat): 17000 ppm (4-hour exposure); cited as 12000 ppm (8-hour exposure) (18)

LD50 (oral, male rat): 4710 mg/kg (cited as 6.0 mL/kg) (19)

LD50 (oral, mouse): 3600 mg/kg (20, unconfirmed)

LD50 (dermal, rabbit): 12870 mg/kg (cited as 16.4 mL/kg) (14)

0007664-38-2           PHOSPHORIC ACID

LC50 (mouse): 25.5 mg/m3 (duration of exposure not specified) (4)

LD50 (oral, rat): 3500 mg/kg (85% aqueous solution); 4200 mg/kg (80% aqueous solution)

**Potential Health Effects - Miscellaneous**

0000067-56-1 METHANOL

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: eyes, kidneys, liver, skin. Excessive human exposure to methanol may lead to: fatigue, headache, anaesthetic, neurologic effects, and visual difficulties including blindness or death. Recurrent overexposure may result in liver and kidney injury. Has been toxic to the fetus in laboratory animals at doses that are toxic to the mother. Ingestion may cause any of the following: blindness. Eye contact may cause any of the following: conjunctivitis, mild irritation, corneal opacity.

0000067-63-0 ISOPROPYL ALCOHOL

The following medical conditions may be aggravated by exposure: dermatitis, respiratory disease. Developmental toxicity was seen in rat's offspring at doses that were maternally toxic. Contact will cause moderate to severe redness and swelling, itching, tingling sensation, painful burning. May cause injury to the cornea of the eyes. Prolonged or repeated exposure may cause damage to any of the following organs/systems: liver. Ingestion studies on laboratory animals showed that very high oral doses caused increased liver and kidney weights.

0007664-38-2 PHOSPHORIC ACID

Ingestion may cause any of the following: burns to mouth and stomach. Inhalation of vapor may cause any of the following: burns to respiratory system. Skin or eye contact may cause any of the following: burns.

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## SECTION 12) ECOLOGICAL INFORMATION

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### Persistence and Degradability:

No data available.

### Bio-accumulative Potential:

No data available.

### Mobility in Soil:

No data available.

### Toxicity:

No Data Available

### Other adverse effects:

No data available.

### Mobility in Soil

0000067-56-1 METHANOL

Will not adsorb on soil.

### Persistence and Degradability

0000067-56-1 METHANOL

72% aerobic biodegradability.

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## SECTION 13) DISPOSAL CONSIDERATIONS

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### Waste Disposal:

Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state and local laws.

Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

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## SECTION 14) TRANSPORT INFORMATION

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### U.S. DOT Information:

UN Number: UN2924

Proper Shipping Name: Flammable liquids, corrosive, n.o.s. (Phosphoric acid, methanol)

HAZARD CLASS: 3

Packaging Group: II

Hazardous substance (RQ): No data available

Toxic-Inhalation Hazard: No data available

Marine Pollutant: No data available

Note / Special Provision: No data available

### IMDG Information:

UN Number: UN2924  
 Proper Shipping Name: Flammable liquids, corrosive, n.o.s. (Phosphoric acid, methanol)  
 HAZARD CLASS: 3  
 Packaging Group: II  
 Marine Pollutant: No data available  
 Note / Special Provision: No data available

**IATA Information:**

UN Number: UN2924  
 HAZARD CLASS: 3  
 Packaging Group: II  
 Proper Shipping Name: Flammable liquids, corrosive, n.o.s. (Phosphoric acid, methanol)  
 Note / Special Provision: No data available

**SECTION 15) REGULATORY INFORMATION**

CAS	Chemical Name	% By Weight	Regulation List
0000104-15-4	P-TOLUENESULFONIC ACID	47% - 79%	DSL,SARA312
0000067-56-1	METHANOL	11% - 25%	Canada_NPRI,DSL,HAPS,SARA312,SARA313,WI_NR438 - WI_NR438 - AIR CONTAMINANT EMISSION INVENTORY REPORTING REQUIREMENTS
0000067-63-0	ISOPROPYL ALCOHOL	11% - 25%	Canada_NPRI,DSL,SARA312,SARA313
0007664-38-2	PHOSPHORIC ACID	0.2% - 3%	Canada_NPRI,DSL,SARA312,WI_NR438 - WI_NR438 - AIR CONTAMINANT EMISSION INVENTORY REPORTING REQUIREMENTS

**SECTION 16) OTHER INFORMATION**

**General:**

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG- Canadian Transportation of Dangerous Goods; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center (US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL- Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self-Contained Breathing Apparatus; STEL- Short Term Exposure Limit; TCEQ - Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA - Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

**HMIS**

<b>INGREDIENTS</b>	<b>CAS NO.</b>	<table border="1"> <tr> <td>H HEALTH</td> <td><b>3</b></td> </tr> <tr> <td>F FLAMMABILITY</td> <td><b>3</b></td> </tr> <tr> <td>REACTIVITY</td> <td><b>1</b></td> </tr> <tr> <td>PERSONAL PROTECTION</td> <td><b>X</b></td> </tr> </table>	H HEALTH	<b>3</b>	F FLAMMABILITY	<b>3</b>	REACTIVITY	<b>1</b>	PERSONAL PROTECTION	<b>X</b>
H HEALTH	<b>3</b>									
F FLAMMABILITY	<b>3</b>									
REACTIVITY	<b>1</b>									
PERSONAL PROTECTION	<b>X</b>									
Benzenesulfonic Acid, 4-methyl	104-15-4									
Methanol	67-56-1									
2-propanol	67-63-0									
Phosphoric acid	7664-38-2									
<b>VOC of Coating:</b>										
347 in grams per liter (excludes volume of water and exempts solvent)										

**DISCLAIMER**

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