

SAFETY DATA SHEET

SECTION 1) CHEMICAL PRODUCT AND MANUFACTURER'S IDENTIFICATION

Product ID: MIRA 759C
Product Name: MIRA-POLY POLYURETHANE VARNISH CLEAR - GLOSS
Revision Date: Jan 14, 2019 **Date Printed:** Jan 14, 2019
Version: 4.0 **Supersedes Date:** Jan 12, 2018
Manufacturer's Name: Mira
Address: 473 West 17th Street, Holland, MI 49423
Emergency Phone: 800-535-5053
Information Phone Number: 616-396-1275
Fax: 616-396-9654

SECTION 2) HAZARDS IDENTIFICATION

Classification

Aspiration Hazard - Category 1
Carcinogenicity - Category 1B
Flammable Liquids - Category 2
Germ Cell Mutagenicity - Category 1B
Reproductive Toxicity - Category 2
Skin Irritation - Category 3
Skin Sensitizer - Category 1
Specific Target Organ Toxicity - Repeated Exposure - Category 1

Pictograms



Signal Word

Danger

Hazardous Statements - Physical

H225 - Highly flammable liquid and vapor

Hazardous Statements - Health

H304 - May be fatal if swallowed and enters airways
H350 - May cause cancer
H340 - May cause genetic defects.
H361 - Suspected of damaging fertility or an unborn child.
H316 - Causes mild skin irritation
H317 - May cause an allergic skin reaction
H372 - Causes damage to organs through prolonged or repeated exposure.

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

P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

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.

P272 - Contaminated work clothing should not be allowed out of the workplace.

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.

Precautionary Statements - Response

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.

P331 - Do NOT induce vomiting.

P308 + P313 - IF exposed or concerned: Get medical advice/attention.

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.

P332 + P313 - If skin irritation occurs: Get medical advice/attention.

P302 + P352 - IF ON SKIN: Wash with plenty of water.

P333 + P313 - If skin irritation or a rash occurs: Get medical advice/attention.

P321 - For specific treatment see section 4.

P362 + P364 - Take off contaminated clothing. And wash it before reuse.

P314 - Get Medical advice/attention if you feel unwell.

Precautionary Statements - Storage

P405 - Store locked up.

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.

Acute toxicity of 49.2% of the mixture is unknown

SECTION 3) COMPOSITION, INFORMATION ON INGREDIENTS

CAS	Chemical Name	% By Weight
proprietary	resin solids	37% - 61%
0064742-88-7	MEDIUM MINERAL SPIRITS	30% - 50%

0064742-48-9	NAPHTHA, HEAVY HYDROTREATED (PETROLEUM)	6% - 13%
0000100-41-4	ETHYLBENZENE	0.0% - 0.9%
0008052-41-3	STODDARD SOLVENT	0.0% - 0.6%
0000096-29-7	2-BUTANONE OXIME	0.0% - 0.4%
0000136-51-6	CALCIUM 2-ETHYLHEXANOATE	0.0% - 0.2%
0064742-95-6	AROMATIC HYDROCARBON MIXTURE >C9	Trace
0000095-63-6	1,2,4-TRIMETHYLBENZENE	Trace
0064742-89-8	ALIPHATIC, LIGHT HYDROCARBON SOLVENT	Trace
0000136-53-8	zinc 2-ethylhexanoate	Trace
0000098-82-8	CUMENE	Trace

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality.

SECTION 4) FIRST-AID MEASURES

Inhalation

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

IF exposed or concerned: Get medical advice/attention.

Eliminate all ignition sources if safe to do so.

Skin Contact

Take off all contaminated clothing, shoes, and leather goods (e.g., watchbands, belts). Wash with plenty of lukewarm, gently flowing water for a duration of 15-20 minutes. If skin irritation or rash occurs: Get medical advice/attention.

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

Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. If vomiting occurs naturally, lie on your side, in the recovery position.

SECTION 5) FIRE-FIGHTING MEASURES

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.

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.

SECTION 6) ACCIDENTAL RELEASE MEASURES

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

Dike area to contain spill.

Absorb spill with inert absorbent.

SECTION 7) HANDLING AND STORAGE

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.

SECTION 8) EXPOSURE CONTROLS, PERSONAL PROTECTION

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.

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.

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	ACGIH TWA (ppm)	ACGIH TWA (mg/m3)	ACGIH STEL (ppm)	ACGIH STEL (mg/m3)	ACGIH Carcinogen
ALIPHATIC, LIGHT HYDROCARBON SOLVENT	500	2000			1			(L)[N159] (L)[N800]	[(L) [N159](L) [N800]]; [5 (I) [N159]5 (I) [N800]];			[A2 [N159]A2 [N800]]; [A4 [N159]A4 [N800]];
AROMATIC HYDROCARBON MIXTURE >C9	500	2000			1			(L)[N159] (L)[N800]	[(L) [N159](L) [N800]]; [5 (I) [N159]5 (I) [N800]];			[A2 [N159]A2 [N800]]; [A4 [N159]A4 [N800]];
CUMENE	50	245			1		1	50				
ETHYLBENZENE	100	435			1			20				A3
MEDIUM MINERAL SPIRITS								(L)[N159] (L)[N800]	[(L) [N159](L) [N800]]; [5 (I) [N159]5 (I) [N800]];			[A2 [N159]A2 [N800]]; [A4 [N159]A4 [N800]];
NAPHTHA, HEAVY HYDROTREATED (PETROLEUM)	500	2000			1			(L)[N159] (L)[N800]	[(L) [N159](L) [N800]]; [5 (I) [N159]5 (I) [N800]];			[A2 [N159]A2 [N800]]; [A4 [N159]A4 [N800]];
STODDARD SOLVENT	500	2900			1			100	[(L)]; [5 (I)];			[A2]; [A4];

Chemical Name	ACGIH Notations	ACGIH TLV Basis
ALIPHATIC, LIGHT HYDROCARBON SOLVENT	[A2 [N159]A2 [N800]]; [A4 [N159]A4 [N800]];	URT irr [N159]U RT irr [N800]
AROMATIC	[A2]	URT irr

HYDROCARBON MIXTURE >C9	[N159]A2 [N800]]; [A4 [N159]A4 [N800]];	[N159]U RT irr [N800]
CUMENE		Eye, skin, & URT irr; CNS impair
ETHYLBENZENE	A3; BEI	URT irr;Kidney dam (nephropathy); Cochlear impair
MEDIUM MINERAL SPIRITS	[A2 [N159]A2 [N800]]; [A4 [N159]A4 [N800]];	URT irr [N159]U RT irr [N800]
NAPHTHA, HEAVY HYDROTREATED (PETROLEUM)	[A2 [N159]A2 [N800]]; [A4 [N159]A4 [N800]];	URT irr [N159]U RT irr [N800]
STODDARD SOLVENT	[A2]; [A4];	Eye, skin, & kidney dam; nausea; CNS impair

(C) - Ceiling limit, A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans, 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

The information in this Section does not list components that might have relevant ACGIH Notations, ACGIH TLV Basis, OSHA TWA (mg/m3), OSHA Tables (Z1, Z2, Z3), ACGIH TWA (ppm), ACGIH TWA (mg/m3), ACGIH STEL (ppm), ACGIH STEL (mg/m3), ACGIH Carcinogen regulatory values, if they are present at less than 10%. Please contact manufacturer for more information.

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Density	7.46242 lb/gal
% Solids By Weight	49.68210%
% VOC	50.36070%
Density VOC	3.75813 lb/gal
VOC Regulatory	3.75543 lb/gal
VOC Regulatory	450.01300 g/l

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	NA
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

SECTION 10) STABILITY AND REACTIVITY

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.

SECTION 11) TOXICOLOGICAL INFORMATION

Skin Corrosion/Irritation

Causes mild skin irritation

Serious Eye Damage/Irritation

No Data Available

Respiratory/Skin Sensitization

May cause an allergic skin reaction

Germ Cell Mutagenicity

May cause genetic defects.

Carcinogenicity

May cause cancer

Reproductive Toxicity

Suspected of damaging fertility or an unborn child.

Specific Target Organ Toxicity - Single Exposure

No Data Available

Specific Target Organ Toxicity - Repeated Exposure

Causes damage to organs through prolonged or repeated exposure.

Aspiration Hazard

May be fatal if swallowed and enters airways

Acute Toxicity

No Data Available

0000095-63-6 1,2,4-TRIMETHYLBENZENE

LC50 (rat): 18 g/m3 (4-hour exposure) (1)

LD50 (oral, rat): 5 g/kg (1)

0000098-82-8 CUMENE

LC50 (inhalation, mouse): 10 mg/L; (2000 ppm); 7-hr exposure (1,3)

LC50 (inhalation, rat): 39 mg/L (8000 ppm); 4-hr exposure (1,3,6)

LD50 (oral, rat): Reported as 1.4 g/kg and 2.26 g/kg (1,3,4)

LD50 (skin, rabbit): 10627 mg/kg (4)

0000100-41-4 ETHYLBENZENE

LC50 (inhalation, rat): 4000 ppm; 4-hour exposure (3)

LD50 (oral, rat): 3.5 g/kg (1,3,5,10)

LD50 (oral, rat): 4.72 g/kg (3,5,7,8)

LD50 (dermal, rabbit): 17.8 g/kg (11)

0008052-41-3 STODDARD SOLVENT

LC50 (rat): greater than 5500 mg/m3 (880 ppm) (whole body exposure for 4 hours) (1)

LC50 (rat): greater than 8200 mg/m3 (1300 ppm) (2)

LD50 (oral, rat): greater than 5 g/kg (1)

LD50 (dermal, rabbit): greater than 3 g/kg (1)

SECTION 12) ECOLOGICAL INFORMATION

Bio-accumulative Potential

No data available.

Persistence and Degradability

No data available.

Mobility in Soil

No data available.

Toxicity

No Data Available

Other adverse effects

No data available.

SECTION 13) DISPOSAL CONSIDERATIONS

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

SECTION 14) TRANSPORT INFORMATION

U.S. DOT Information

Proper Shipping Name: PAINT
 Identification Number : UN/NA 1263
 Hazard Class:3
 Packing group: II

IMDG Information

Proper Shipping Name: PAINT
 Identification Number : UN/NA 1263
 Hazard Class:3
 Packing group: II
 Marine Pollutant : No data available

IATA Information

Proper Shipping Name: PAINT
 Identification Number : UN/NA 1263
 Hazard Class:3
 Packing group: II

SECTION 15) REGULATORY INFORMATION

REGULATORY INFORMATION

TSCA Inventory: All components of this product are in compliance with U.S. TSCA Chemical Substance Inventory Requirements.
 Canada Domestic Substances List: All components of this product are listed on the Domestic Substances List

CAS	Chemical Name	% By Weight	Regulation List
proprietary	resin solids	37% - 61%	SARA312
0064742-88-7	MEDIUM MINERAL SPIRITS	30% - 50%	Canada_NPRI,DSL,SARA312
0064742-48-9	NAPHTHA, HEAVY HYDROTREATED (PETROLEUM)	6% - 13%	Canada_NPRI,DSL,SARA312
0000100-41-4	ETHYLBENZENE	0.0% - 0.9%	Canada_NPRI,DSL,HAPS,SARA312,CA_Carcinogen,WI_NR438 - WI_NR438 - AIR CONTAMINANT EMISSION INVENTORY REPORTING REQUIREMENTS
0008052-41-3	STODDARD SOLVENT	0.0% - 0.6%	Canada_NPRI,DSL,SARA312,WI_NR438 - WI_NR438 - AIR CONTAMINANT EMISSION INVENTORY REPORTING REQUIREMENTS
0000096-29-7	2-BUTANONE OXIME	0.0% - 0.4%	DSL,SARA312
0000136-51-6	CALCIUM 2-ETHYLHEXANOATE	0.0% - 0.2%	DSL,SARA312
0064742-95-6	AROMATIC HYDROCARBON MIXTURE >C9	Trace	Canada_NPRI,DSL,SARA312
0000095-63-6	1,2,4-TRIMETHYLBENZENE	Trace	Canada_NPRI,DSL,SARA312
0064742-89-8	ALIPHATIC, LIGHT HYDROCARBON SOLVENT	Trace	Canada_NPRI,DSL,SARA312
0000136-53-8	zinc 2-ethylhexanoate	Trace	Canada_NPRI,DSL,SARA312
0000098-82-8	CUMENE	Trace	Canada_NPRI,DSL,HAPS,SARA312,CA_Carcinogen,WI_NR438 - WI_NR438 - AIR

The information in this Section does not list components that might have relevant Canada NPRI, DSL, HAPS, SARA312, WI_Nr438 - WI_Nr438 - AIR CONTAMINANT EMISSION INVENTORY REPORTING REQUIREMENTS regulatory values, if they are present at less than 10%. Please contact manufacturer for more information.

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.

Other Special Consideration

* There are points of differences between OSHA GHS and UN GHS. In 90% of the categories, they can be used interchangeably, but for the Skin Corrosion/Irritant Category and the Specific Target Organ Toxicity (Single and Repeated Exposure) Categories. In these cases, our system will say UN GHS.

HMIS

Health	/ 2
FLAMMABILITY	2
Physical Hazard	0
Personal Protection	X

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks

Version 4.0:

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DISCLAIMER

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