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1. Product and Company Identification

Product Code: 402A-CLEAR

Product Name: 402 Urethane Topcoat - Clear Part A

Trade Name: 402 Urethane Topcoat - Clear Part A

Distributor Information

Company Name: Epoxy Systems, Inc.

20774 W Pennsylvania Ave. Dunnellon, Florida 34421

Phone Number: +1 (352) 489-1666

Emergency Contact: PERS (USA) (800) 633-8253

Alternate Emergency Contact: PERS (International) +1 (801) 629-0667

Industrial Maintenance Coatings

2. Hazards Identification

GHS Classification	Placard	Key word	GHS hazard phrase
Flammable Liquids, Category 3	Flame	Warning	Flammable liquid and vapor
Acute Toxicity: Inhalation, Category 4	Exclamation point	Warning	Harmful if inhaled
Serious Eye Damage/Eye Irritation, Category 2A	Exclamation point	Warning	Causes serious eye irritation
Skin Corrosion/Irritation, Category 2	Exclamation point	Warning	Causes skin irritation

GHS Hazard Phrases

- H226 Flammable liquid and vapor.
- H332 Harmful if inhaled. H335 May cause respiratory irritation.
- H305 May be harmful if swallowed and enters airways.
- H319 Causes serious eye irritation.
- H315 Causes skin irritation.

GHS Precaution Phrases

- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P261 Avoid breathing mist/vapors/spray.
- P240 Ground/bond container and receiving equipment.
- P243 Take precautionary measures against static discharge.
- P242 Use only non-sparking tools.
- P271 Use only outdoors or in a well-ventilated area.
- P264 Wash hands thoroughly after handling.
- P233 Keep container tightly closed.

GHS Response Phrases

P370+378 - In case of fire, use CO2, Dry Chemical, Foam or Water Spray to extinguish.

P303+361+353 - IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. P332+313 - If skin irritation occurs, get medical advice/attention.

P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

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P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+313 - If eye irritation persists, get medical advice/attention.

P302+352 - IF ON SKIN: Wash with plenty of soap and water. P332+313 - If skin irritation occurs, get medical advice/attention. P362 - Take off contaminated clothing.

GHS Storage and Disposal Phrases

P501 - Dispose of contents/container to local, state, and federal authority requirements.

P403+235 - Store in cool/well-ventilated place. P410 - Protect from sunlight.

P405 - Store locked up.

Potential Health Effects (Acute and Chronic)

May cause skin, eye, and respiratory irritation. Substance can be absorbed through the skin in harmful amounts. Signs and symptoms of excessive exposure may be central nervous system effects such as sleepiness and unconsiousness.

Inhalation

May cause respiratory irritation. Vapors may have a strong offensive odor which may cause headaches, nausea and vomiting.

Skin Contact

May cause skin irritation. Repeated exposure may cause skin dryness or cracking. May be harmful if absorbed through the skin.

Eye Contact

Substance causes moderate eye irritation.

Ingestion

May be harmful if swallowed and enters airways.

Medical Conditions Generally Aggravated By Exposure

Skin disorders, Respiratory disorders, Eye disorders, Skin Allergies.

OSHA Regulatory Status:

This material is classified as hazardous under OSHA regulations.

3. Composition/Information on Ingredients					
Hazardous Components (Chemical Name)	CAS#	Concentration			
 Polyester Resin (Proprietary) 	NA	35 - 50 %			
2. Propylene glycol methyl ether acetate	108-65-6	25 - 35 %			
3. Xylene	1330-20-7	10 - 20 %			
4. Ethyl Benzene	100-41-4	<=0.10 %			

4. First Aid Measures

Emergency and First Aid Procedures

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use first aid treatment according to the nature of the injury.

In Case of Inhalation

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If experiencing respiratory symptoms: Get medical attention immediately.

In Case of Skin Contact

In case of contact, immediately wash skin with soap and copious amounts of water. Remove contaminated clothing and shoes. Get medical attention if irritation develops or persists.

In Case of Eye Contact

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Remove contact lenses, if present and easy to do. Continue rinsing.

Consult

a physician.

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In Case of Ingestion

Rinse mouth and then drink plenty of water. Do not induce vomiting. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Immediate medical attention required.

Signs and Symptoms Of Exposure

May cause rash on skin, and redness in eyes. May cause coughing by inhalation of a mist or spray.

5. Fire Fighting Measures

Flash Pt: > 60.00 F Method Used: Closed Cup

Explosive Limits: LEL: NE UEL: NE

Autoignition Pt: N.E.

Fire Fighting Instructions

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Flammable Properties and Hazards

Closed container may rupture (due to build up in pressure) when exposed to extreme heat.

Hazardous Combustion Products

In a fire, product may produce the following: Carbon monoxide, Carbon dioxide, Nitrogen oxides.

Suitable Extinguishing Media

Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam. Dry extinguishing media, foam.

Unsuitable Extinguishing Media

Do not use a direct water stream, which may spread fire.

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL.

Use personal protective equipment. Remove all sources of ignition. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate the area. Prevent further leakage or spillage if safe to do so. Dike far ahead of spill; use dry sand to contain the flow of material. Use a non-combustible material like vermiculite or sand to soak up the product and place into a container for later disposal. Use clean non-sparking tools to collect absorbed material.

Protective Precautions, Protective Equipment and Emergency Procedures

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves. Where splashing is possible, full chemically resistant protective clothing, and boots are required.

Environmental Precautions

Prevent entry into waterways, sewers, basements or confined areas.

7. Handling and Storage

Hazard Label Information:

Keep away from heat and flame. Do not get on skin and clothing. Avoid inhalation of vapor or mist. Store in airtight containers

Precautions To Be Taken in Handling

Wear all personal protection required. Wash thoroughly after handling. Provide adequate ventilation. Do not breathe vapor. Do not get in eyes, on skin or on clothing. When using multi-component systems, be aware of hazards for all components.

Precautions To Be Taken in Storing

Keep away from sources of ignition - No smoking. Store in a tightly closed container. Protect from sunlight and store in well-ventilated place. Store away from incompatible material.

Other Precautions

Keep away from sources of ignition - No smoking. Keep away from heat, sparks, and flame.

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8.	Exp	osure Con	trols/Perso	nal Protection

Hazardous Components (Chemical Name) CAS# **OSHA PEL ACGIH TWA Other Limits** 1. Polyester Resin (Proprietary) NA No data. No data. No data. Propylene glycol methyl ether acetate 108-65-6 No data. No data. No data. Xylene 1330-20-7 PEL: 100 ppm No data. TLV: 100 ppm STEL: 150 ppm

4. Ethyl Benzene 100-41-4 PEL: 100 ppm TLV: 100 ppm No data.

STEL: 125 ppm

Protective Equipment Summary - Hazard Label Information:

Chemical resistant gloves Safety glasses, or goggles. Impervious clothing. Chemical resistant boots If required, an approved respirator.

Respiratory Equipment (Specify Type)

Respiratory protection in case of vapor/aerosol release. Combination filter for gases/vapors of organic compounds and solid and liquid particles (f.e. EN 14387 Type A-P2). In isocyanate-containing environments (air-purifying or fresh air-supplied) may be necessary for spray applications or other situations such as high temperature use which may produce inhalation exposures.

Eye Protection

Safety glasses, or goggles.

Protective Gloves

Nitrile rubber and Neoprene are recommended. Check during use that the gloves are still retaining their protective properties.

Other Protective Clothing

Where splashing is possible, full chemically resistant protective clothing, safety glasses or face shield and boots are required.

Engineering Controls (Ventilation etc.)

Good general ventilation should be sufficient to control airborne levels.

Safety shower and eye bath.

Work/Hygienic/Maintenance Practices

Wash contaminated clothing before reuse. Discard contaminated shoes. Wash thoroughly after handling.

Environmental Exposure Controls

Avoid runoff into storm sewers and ditches which lead to waterways. May be hazardous to the environment if released in large quantities.

9. Physical and Chemical Properties

[] Gas [X]Liquid [] Solid **Physical States:**

Melting Point: NE **Boiling Point:** No data. NE **Decomposition Temperature: Autoignition Pt:** N.E.

Flash Pt: > 60.00 F Method Used: Closed Cup

Explosive Limits: LEL: NE UEL: NE

~ 1.045 **Specific Gravity (Water = 1):** ~ 8.72 LB/GL **Density:**

NE Vapor Pressure (vs. Air or mm Hg): NE **Vapor Density (vs. Air = 1): Evaporation Rate:** ΝE

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Solubility in Water: NE

Solubility Notes

Partial solubility.

Percent Volatile: ~ 59 % by weight.

VOC / Volume: NP
HAP / Volume: NP
Saturated Vapor Concentration: NE

Appearance and Odor

Odor: Solvent odor. Appearance: Clear.

10. Stability and Reactivity

Stability: Unstable [] Stable [X]

Reactivity

Avoid uncontrolled contact with isocyanates.

Conditions To Avoid - Instability

Extreme temperatures. Heat, flames and sparks.

Incompatibility - Materials To Avoid

Strong oxidizing agents.

Hazardous Decomposition Or Byproducts

Thermal decomposition may produce smoke, carbon monoxide, carbon dioxide.

Possibility of Hazardous Will occur [] Will not occur [X]

Polymerization:

Conditions To Avoid - Hazardous Reactions

Will not undergo hazardous polymerization in normal storage conditions.

11. Toxicological Information

Toxicological Information

May be harmful if absorbed through the skin.

CAS# 1330-20-7:

Acute toxicity, LD50, Oral, Rat, 4300. MG/KG.

Results:

Liver: Other changes.

Kidney, Ureter, Bladder:Other changes.

- AMA Archives of Industrial Health., For publisher information, see AEHLAU, Chicago, IL, Vol/p/yr: 14,387, 1956

Acute toxicity, LC50, Inhalation, Rat, 5000. PPM, 4 H.

Results:

Behavioral: Convulsions or effect on seizure threshold.

Behavioral: Ataxia.

Lungs, Thorax, or Respiration: Dyspnea.

- Raw Material Data Handbook, Vol.1: Organic Solvents, 1974., National Assoc. of Printing Ink Research Institute, Francis McDonald Sinclair Memorial Labor, Lehigh Univ., Bethlehem, PA 18015, Vol/p/yr: 1,123, 1974

Chronic Toxicological Effects

No data available based on mixture itself.

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Irritation or Corrosion

May cause skin, eye, and respiratory irritation.

Symptoms related to Toxicological Characteristics

May cause rash on skin, and redness in eyes. May cause coughing by inhalation of a mist or spray.

На	zardous Components (Chemical Name)	CAS#	NTP	IARC	ACGIH	OSHA
1.	Polyester Resin (Proprietary)	NA	n.a.	n.a.	n.a.	n.a.
2.	Propylene glycol methyl ether acetate	108-65-6	n.a.	n.a.	n.a.	n.a.
3.	Xylene	1330-20-7	n.a.	3	A4	n.a.
4.	Ethyl Benzene	100-41-4	n.a.	2B	A3	n.a.

12. Ecological Information

General Ecological Information

Avoid release to the environment.

Results of PBT and vPvB assessment

No data available.

Persistence and Degradability

Not readily biodegradable.

Bioaccumulative Potential

No data available.

Mobility in Soil

not reported, unknown.

13. Disposal Considerations

Waste Disposal Method

Dispose of this product, product solutions and its container according to federal, state and local authority requirements. Liquids cannot be disposed of in a landfill. Empty containers may contain product residue. Care should be taken while handling and disposing of empty containers that contain residue. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

14. Transport Information

LAND TRANSPORT (US DOT)

DOT Proper Shipping Name Resin solution, [flammable] (Contains Xylene, PM Acetate)

DOT Hazard Class: 3

DOT Hazard Label: FLAMMABLE LIQUID

UN/NA Number: UN1866

Packing Group: III

Precautionary Label Warning! Flammable Liquid. Ventilation is normally required when handling or

using this product to keep exposure to airborne contaminants below the exposure limit. Vapors or mist may be a fire and explosion hazard when exposed to high temperature or ignition. Ground and bond containers and equipment before transferring to avoid static sparks. Always read Safety

Material Data Sheet before use.

AIR TRANSPORT (ICAO/IATA)

ICAO/IATA Shipping Name Resin solution, [flammable] (Contains Xylene, PM Acetate)

Note: The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. Shipment compliance is the responsibility of the person

offering the product for transport.

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UN Number: 1866

Hazard Class: 3 - FLAMMABLE LIQUID

Packing Group: III

MARINE TRANSPORT (IMDG/IMO)

IMDG/IMO Shipping Name Resin solution, [flammable] (Contains Xylene, PM Acetate)

UN Number: 1866

Hazard Class: 3 - FLAMMABLE LIQUID

Packing Group: III
Marine Pollutant: No

15. Regulatory Information

US EPA SARA Title III

Н	azardous Components (Chemical Name)	CAS#	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110	
1.	Polyester Resin (Proprietary)	NA	No	No	No	No	
2.	Propylene glycol methyl ether acetate	108-65-6	No	No	No	No	
3.	Xylene	1330-20-7	No	Yes 100 LB	Yes	Yes	
4.	Ethyl Benzene	100-41-4	No	Yes 1000 LB	Yes	Yes	

Regulatory Information

SARA Section 311/312: Acute Health Hazard. Fire Hazard.

16. Other Information

CA=CIRCA NA=NOT AVAILABLE NE=NOT ESTABLISHED NR=NOT REGULATED NP= NOT APPLICABLE PR=PROPRIETARY TS=TRADE SECRET ?=UNKNOWN.

Company Policy or Disclaimer

The information contained in this MSDS is taken from sources believed to be accurate as of the date hereof; however Epoxy Systems, Inc. makes no expressed or implied warranty in respect to the accuracy of the information or the suitability of the recommendations, and assumes no liabilities to any user thereof.

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