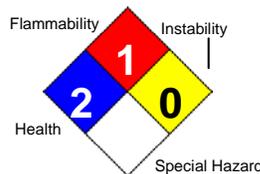


441 Water Based Urethane - Light Tint Base (Matte) Part A

HEALTH	2
FLAMMABILITY	1
PHYSICAL	0
PPE	X



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1. Product and Company Identification

Product Code:	441-LTB		
Product Name:	441 Water Based Urethane - Light Tint Base (Matte) Part A		
Trade Name:	441 Water Based Urethane - Light Tint Base (Matte) Part A		
Manufacturer Information			
Company Name:	Epoxy Systems, Inc. 20774 W Pennsylvania Ave Dunnellon, FL 34431		
Phone Number:	+1 (352) 489-1666		
Emergency Contact:	PERS (USA)	(800)633-8253	
Alternate Emergency Contact:	PERS (International)	+1 (801) 629-0667	
Intended Use:	Industrial floor coatings.		

2. Hazards Identification

GHS Classification	Placard	Key word	GHS hazard phrase
Serious Eye Damage/Eye Irritation, Category 2B	none	Warning	Causes eye irritation
Skin Corrosion/Irritation, Category 3	none	Warning	Causes mild skin irritation

GHS Hazard Phrases

- H320 - Causes eye irritation.
- H316 - Causes mild skin irritation.
- H335 - May cause respiratory irritation.
- H303 - May be harmful if swallowed.

GHS Precaution Phrases

- P103 - Read label before use. P281 - Use personal protective equipment as required.
- P262 - Do not get in eyes, on skin, or on clothing. P261 - Avoid breathing mist/vapors/spray.

GHS Response Phrases

- 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.
- 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.
- P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P313 - Get medical advice/attention.

GHS Storage and Disposal Phrases

- P404 - Store in a closed container.
- P402 - Store in a dry place.
- P401 - Store at 45-80 degrees Fahrenheit.

Potential Health Effects (Acute and Chronic)

- May cause eye irritation. May cause skin irritation. May cause respiratory irritation.

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Inhalation

May cause respiratory irritation.

Skin Contact

May cause skin irritation.

Eye Contact

May cause eye irritation.

Ingestion

May be harmful if swallowed.

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
1. Titanium dioxide	13463-67-7	20 - 35 %
2. Triethanolamine	102-71-6	1.0 - 5.0 %
3. 2-Propanol, 1-Butoxy-	5131-66-8	1.0 - 5.0 %
4. Wetting Agent	NA	1.0 - 5.0 %
5. N-Methyl-2-pyrrolidone	872-50-4	<2.0 %

4. First Aid Measures

Emergency and First Aid Procedures

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. Call a physician.

In Case of Ingestion

If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately. For further assistance, contact your local Poison Control Center.

Signs and Symptoms Of Exposure

Mild irritation effect.

5. Fire Fighting Measures

Flash Pt: NA Method Used: Not Applicable

Explosive Limits: LEL: NE UEL: NE

Autoignition Pt: No data available.

Fire Fighting Instructions

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Use water spray to cool unopened containers.

Flammable Properties and Hazards

Product will not support combustion as supplied. Product is not considered a fire hazard. Closed containers may rupture (due to build up in pressure) when exposed to extreme heat.

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Hazardous Combustion Products

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

Suitable Extinguishing Media

Will not support combustion.

Unsuitable Extinguishing Media

Will not support combustion.

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.

Evacuate area. Absorb with sand or vermiculite and place in closed containers for disposal. Ventilate the area.

Protective Precautions, Protective Equipment and Emergency Procedures

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

Environmental Precautions

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

7. Handling and Storage

Hazard Label Information:

Avoid contact with skin and eyes. Do not get on skin and clothing. Keep from freezing. Store in a closed container.

Precautions To Be Taken in Handling

Provide adequate ventilation. Do not breathe vapor. Do not get in eyes, on skin or on clothing.

Precautions To Be Taken in Storing

Keep from freezing. Keep container closed when not in use.

Other Precautions

Wash thoroughly after handling.

8. Exposure Controls/Personal Protection

Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TLV	Other Limits
1. Titanium dioxide	13463-67-7	15 (dust) mg/m ³	10 mg/m ³	No data.
2. Triethanolamine	102-71-6	No data.	5 mg/m ³	No data.
3. 2-Propanol, 1-Butoxy-	5131-66-8	No data.	No data.	No data.
4. Wetting Agent	NA	No data.	No data.	No data.
5. N-Methyl-2-pyrrolidone	872-50-4	No data.	No data.	No data.

Protective Equipment Summary - Hazard Label Information:

Neoprene gloves Safety glasses, or goggles. Impervious clothing.

Respiratory Equipment (Specify Type)

Normally when good engineering controls are used, no respiratory protection is needed. However, if cured product is abraded by sanding or grinding use a NIOSH approved air-purifying respirator. Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

Eye Protection

Safety glasses, or goggles.

Protective Gloves

Nitrile rubber and Neoprene are recommended.

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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 release to the environment. Avoid runoff into storm sewers and ditches which lead to waterways.

9. Physical and Chemical Properties

Physical States: Gas Liquid Solid

Melting Point: No data.

Boiling Point: 212.00 F

Autoignition Pt: No data.

Flash Pt: NA Method Used: Not Applicable

Explosive Limits: LEL: NE UEL: NE

Specific Gravity (Water = 1): 1.03

Density: ~ 8.6

Vapor Pressure (vs. Air or mm Hg): NE

Vapor Density (vs. Air = 1): NE

Evaporation Rate: NE

Solubility in Water: Soluble

Solubility Notes

Water soluble.

Percent Volatile: >= 70.0 % by volume.

HAP / Volume: NP

Saturated Vapor Concentration: NE

Appearance and Odor

White. Faint.

10. Stability and Reactivity

Stability: Unstable Stable

Reactivity

None known.

Conditions To Avoid - Instability

None known.

Incompatibility - Materials To Avoid

Strong oxidizing agents.

Hazardous Decomposition Or Byproducts

None known.

Possibility of Hazardous Polymerization: Will occur Will not occur

Conditions To Avoid - Hazardous Reactions

None known.

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11. Toxicological Information

Toxicological Information

Product not considered to be a toxic mixture.

Chronic Toxicological Effects

No data available.

Irritation or Corrosion

No data available.

Symptoms related to Toxicological Characteristics

No data available.

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. Titanium dioxide	13463-67-7	n.a.	2B	A4	n.a.
2. Triethanolamine	102-71-6	n.a.	3	n.a.	n.a.
3. 2-Propanol, 1-Butoxy-	5131-66-8	n.a.	n.a.	n.a.	n.a.
4. Wetting Agent	NA	n.a.	n.a.	n.a.	n.a.
5. N-Methyl-2-pyrrolidone	872-50-4	n.a.	n.a.	n.a.	n.a.

12. Ecological Information

General Ecological Information

Do not empty into drains. Avoid release to the environment.

Results of PBT and vPvB assessment

No data available.

Persistence and Degradability

No data available.

Bioaccumulative Potential

not reported, unknown.

Mobility in Soil

not reported, unknown.

13. Disposal Considerations

Waste Disposal Method

Incinerate or dispose of unused material, residues and containers in a licensed facility in accordance with all applicable local, state and federal regulations. Do not discharge substance/product into sewage system.

14. Transport Information

LAND TRANSPORT (US DOT)

DOT Proper Shipping Name Not Regulated.

Precautionary Label May cause skin, eye, and respiratory irritation. Always read Safety Material Data Sheet before use.

AIR TRANSPORT (ICAO/IATA)

ICAO/IATA Shipping Name Not Regulated.

MARINE TRANSPORT (IMDG/IMO)

IMDG/IMO Shipping Name Not Regulated.

15. Regulatory Information

US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. Titanium dioxide	13463-67-7	No	No	No	No

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Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
2. Triethanolamine	102-71-6	No	No	No	No
3. 2-Propanol, 1-Butoxy-	5131-66-8	No	No	No	No
4. Wetting Agent	NA	No	No	No	No
5. N-Methyl-2-pyrrolidone	872-50-4	No	No	Yes	No

Regulatory Information

SARA Section 311/312: Acute Health 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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