

Safety Data Sheet

Umaco Ultra-Glaze 475

Section 1 - Chemical Product and Company Information

Product Name: Umaco Ultra-Glaze 475

Emergency Phone Number

Manufactured by:

Chemtrec: (800) 424-9300

Umaco, Inc.

60 Rear Newhall Street

Lowell, MA 01852

(800) 442-5534

Section 2 - Hazards Identification

GHS Ratings:

Inhalation Toxicity	4	Gases>2500+<=20000ppm, Vapors>10+<=20mg/l, Dusts&mists>1+<=5mg/l
Eye corrosive	1	Serious eye damage: Irreversible damage 21 days after exposure, Draize score: Corneal opacity >= 3, Iritis > 1.5
Respiratory sensitizer	1	Respiratory sensitizer
Skin sensitizer	1	Skin sensitizer
Mutagen	1B	Known to produce heritable mutations in human germ cellsSubcategory 1B, Positive results: In vivo heritable germ cell tests in mammals, Human germ cell tests, In vivo somatic mutagenicity tests, combined with some evidence of germ cell mutagenicity
Carcinogen	1B	Presumed Human Carcinogen, Based on demonstrated animal carcinogenicity

GHS Hazards

H317	May cause an allergic skin reaction.
H318	Causes serious eye damage
H332	Harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H340	May cause genetic defects.
H350	May cause cancer.

GHS Precautions

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P285	In case of inadequate ventilation wear respiratory protection
P310	Immediately call a POISON CENTER or doctor/physician
P321	Specific treatment (see supplemental first aid instruction on this label).
P363	Wash contaminated clothing before reuse.

P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	If exposed or concerned: Get medical attention/advice.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P342+P311	Call a POISON CENTER or doctor/physician
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

Signal Word: Danger



Section 3 - Composition/Information on Ingredients

Chemical Name	CAS number	Weight Concentration %
Hexamethylene Diisocyanate	28182-81-2	80.00% - 90.00%
Glycol Ether DPM Acetate	88917-22-0	5.00% - 10.00%
3-Oxazolidineethanol, 2-(1-methylethyl)-,3,3-carbonate	145899-78-1	1.00% - 5.00%
Propylene Carbonate	108-32-7	1.00% - 5.00%
Inert		1.00% - 5.00%
Solvent Naptha	64742-95-6	0.10% - 1.00%
Dodecanoic acid, 1,1'-(dibutylstannylene) ester	77-58-7	0.00% - 0.10%
2,6-Dimethylheptan-4-one	108-83-8	0.00% - 0.10%
1-Methylethylbenzene	98-82-8	0.00% - 0.10%
4,6-Dimethyl-2-heptanone	19549-80-5	0.00% - 0.10%

Section 4 - First Aid Measures

• **Description of first aid measures**

• **General information:**

Immediately remove any clothing soiled by the product.
 Use appropriate protective equipment when treating a contaminated person.
 Place contaminated clothing in a sealed bag for disposal.
 In case of irregular breathing or respiratory arrest provide artificial respiration.

• **After inhalation:**

Move the person away from the contaminated area.
 Fresh air and rest.
 Always obtain medical advice immediately.
 Show this sheet to the doctor.

• **After skin contact:**

Wash with soap and water.
 Wash immediately and thoroughly for a prolonged period (at least 15 minutes).
 In case of inflammation (redness, irritation, ...) obtain medical attention.

· **After eye contact:** Immediately rinse with plenty of running water for a prolonged period, (at least 15 minutes) while keeping the eyes wide open. If irritation persists, consult a doctor. Show this sheet to the doctor.

· **After swallowing:**

NEVER attempt to induce vomiting.

Rinse mouth out with water.

Do not give anything to drink.

If necessary seek medical advice.

Show this sheet to the doctor.

· **Most important symptoms and effects, both acute and delayed**

No further relevant information available.

· **Danger**

Skin contact may aggravate existing skin disease. Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis.

· **Indication of any immediate medical attention and special treatment needed**

All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Treat symptomatically. No specific antidote available.

Section 5 - Fire Fighting Measures

Flash Point: N/A

LEL: 2.00

UEL: 33.00

· **Extinguishing media**

· **Suitable extinguishing agents:**

Foam

Powders

Carbon dioxide

Dry chemical

· **For safety reasons unsuitable extinguishing agents:**

Water

· **Special hazards arising from the substance or mixture Combustible.**

During combustion toxic vapors are released.

Under fire conditions, corrosive fumes are emitted: oxides of nitrogen oxides of carbon.

Reacts with water releasing large amounts of carbon dioxide which may cause pressure build-up in confined spaces.

Advice for firefighters

· **Protective equipment:**

Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing .

· **Additional information**

Stay upwind.

Evacuate the personnel away from the fumes.

In case of fire close by:

Cool down the containers/equipment exposed to heat with a water spray.

Ensure that there is NO direct contact between the water and the product.

Do not breathe fumes.

Do NOT attempt to fight the fire without suitable protective equipment.

If there is a fire close by and if packaging has not been damaged:

Use suitable extinguishers.

Section 6 - Accidental Release Measures

· Personal precautions, protective equipment and emergency procedures

Do not breathe gas.

Avoid contact with the eyes and skin.

Do NOT approach from DOWNWIND.

Do NOT attempt to take action WITHOUT suitable protective equipment.

Self-contained breathing apparatus.

Full impermeable protective clothing and equipment.

Mark out the contaminated area with signs and prevent access to unauthorized personnel. Keep people at a distance and stay upwind.

· Environmental precautions:

Contain the spilled material by binding.

Do not allow to enter sewers/ surface or ground water.

· Methods and material for containment and cleaning up:

Pump up the product into a spare container suitably labelled.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).

Wash contaminated area with large amounts of water.

Recover the cleaning water for subsequent disposal.

Dispose contaminated material as waste according to item 13.

Do not flush to drain.

Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

Section 7 - Handling and Storage

· Precautions for safe handling

Ensure good ventilation/aspiration at the workplace.

Avoid contact with water or humidity.

Avoid any direct contact with the product.

Any measure to eliminate exposure should be considered.

Very high level of containment required, except for short term exposures e.g. taking samples (industrial use condition).

Comply with instructions for use (refer to technical sheet).

· Conditions for safe storage, including any incompatibilities

· Storage:

The floor of the depot should be impermeable and designed to form a water-tight basin.

Store in cool, dry conditions in well sealed receptacles.

Store receptacle in a well ventilated area.

Store away from incompatible materials.

· Requirements to be met by storerooms and receptacles:

Store only in unopened original receptacles.

- Metallic drums.

- Storage tank with a dry nitrogen blanket.

Packaging materials recommended :

- Aluminium.

- Steel.

- Unsuitable material for receptacle: Copper, alloys, and Tin

- Suitable material for receptacle and pipe: epoxy-coated steel.

- Unsuitable material for receptacle: Polystyrene.

· Specific end use(s)

No further relevant information available.

Section 8 - Exposure Controls / Personal Protection

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Hexamethylene Diisocyanate 28182-81-2	Not Established	Not Established	Not Established
Glycol Ether DPM Acetate 88917-22-0	Not Established	Not Established	Not Established
3-Oxazolidineethanol, 2-(1-methylethyl)-,3,3-carbonate 145899-78-1	Not Established	Not Established	Not Established
Propylene Carbonate 108-32-7	Not Established	Not Established	Not Established
Inert	Not Established	Not Established	Not Established
Solvent Naptha 64742-95-6	Not Established	Not Established	Not Established
Dodecanoic acid, 1,1'-(dibutylstannylene) ester 77-58-7	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.	Not Established	Not Established
2,6-Dimethylheptan-4-one 108-83-8	50 ppm TWA; 290 mg/m3 TWA	25 ppm TWA	NIOSH: 25 ppm TWA; 150 mg/m3 TWA
1-Methylethylbenzene 98-82-8	50 ppm TWA; 245 mg/m3 TWA	5 ppm TWA	NIOSH: 50 ppm TWA; 245 mg/m3 TWA
4,6-Dimethyl-2-heptanone 19549-80-5	Not Established	Not Established	Not Established

Exposure controls

• PERSONAL PROTECTIVE EQUIPMENT:

• General protective and hygienic measures:

Ensure good ventilation of the work station.

Safety shower.

Eye wash.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Shower or take a bath at the end of work.

BREATHING EQUIPMENT:

When using a spray-gun, wear: Self-contained breathing apparatus.

In the event of insufficient ventilation: Self-contained breathing apparatus .

When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/ or industrial recommendations.

PROTECTION OF HANDS:

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

• Material of gloves

Suitable materials also with prolonged, direct contact (protective index 6, corresponding > 480 minutes of permeation time):

Nitrile rubber, NBR

Fluorocarbon rubber (Viton)

Protective gloves must be chosen according to the function of the work station: other chemicals which may be handled, physical protection necessary (resistance to cutting, puncture, heat), dexterity required. The selection of gloves must take into account the extent and duration of use at the workstation.

EYE PROTECTION:

Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material. Eye contact should be prevented through use of chemical safety glasses with side shields or splash proof goggles. An emergency eye wash must be readily accessible to the work area. R Safety glasses

BODY PROTECTION:

Protective work clothing

Section 9 - Physical and Chemical Properties

Information on basic physical and chemical properties:

<p>Appearance: Liquid</p> <p>Lb/Gal: 9.46%</p> <p>Weight Solids: 87.9%</p> <p>% VOC: 8.98%</p> <p>Flash Point: > 270°F</p>	<p>Odor: Slight Odor</p> <p>Specific Gravity (SG): 1.134</p> <p>% Volume Solids: 86.65%</p> <p>g/L VOC: 99.9 g/L</p>
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Section 10 - Stability and Reactivity

Thermal decomposition / conditions to be avoided: Stable at ambient temperature.

Possibility of hazardous reactions

Reacts with:

- alcohols.
- amines.
- bases.
- protic solvents.
- water and aqueous solutions. with a great release of CO₂, and hence a risk of a pressure build-up in confined areas, and forms an insoluble solid precipitate.

Reacts with strong acids

Reacts with strong oxidizing agents

STABLE

- **Conditions to avoid:** extreme heat, open flame, moisture, ignition sources
- **Incompatible materials:** No further relevant information available.

• **Hazardous decomposition products:**

On thermal decomposition (pyrolysis) releases: Toxic gases, Nitrogen oxides, Carbon oxides (CO + CO₂)

Hazardous polymerization will not occur.

Section 11 - Toxicological Information

Mixture Toxicity

- Oral Toxicity LD50: 3,041mg/kg
- Dermal Toxicity LD50: 2,272mg/kg
- Inhalation Toxicity LC50: 17mg/L

Component Toxicity

- 28182-81-2 Hexamethylene Diisocyanate
- Oral LD50: 2,500 mg/kg (Rat (female)) Dermal LD50: 2,000 mg/kg (Rat)

88917-22-0	Glycol Ether DPM Acetate Dermal LD50: 5,000 mg/kg (Rabbit) Inhalation LC50: 6 mg/L (Rat)
108-32-7	Propylene Carbonate Dermal LD50: 3,000 mg/kg (Rabbit)
64742-95-6	Solvent Naptha Dermal LD50: 2,000 mg/kg (Rabbit) Inhalation LC50: 3,400 ppm (Rat)
77-58-7	Dodecanoic acid, 1,1'-(dibutylstannylene) ester Oral LD50: 45 mg/kg (Rat) Dermal LD50: 2,000 mg/kg (Rat)
108-83-8	2,6-Dimethylheptan-4-one Dermal LD50: 2,000 mg/kg (Rat) Inhalation LC50: 2,300 ppm (Rat)
98-82-8	1-Methylethylbenzene Oral LD50: 1,400 mg/kg (Rat) Inhalation LC50: 3,577 ppm (Rat)

• **Information on toxicological effects**

• **Acute toxicity:**

• **LD/LC50 values:**

Harmful by inhalation.

To comply with regulatory guidelines, the substance was tested in a form (i.e. specific particle size distribution) that is different from the form in which the substance is placed on the market and in which it can reasonably be expected to be used. The acute inhalation toxicity of the substance is due to its local action on the distal part of the respiratory tract.

As, in the conditions in which the product can reasonably be expected to be used, only a small fraction of the aerosols formed may reach this part of the respiratory tract, a correction has been made to take this difference into consideration. Based on our Expert judgment, the classification Acute inhalation toxicity category 4 is justified.

Not harmful by skin contact.

• **Primary irritant effect:**

• **on the skin:**

Not classified as irritating to skin. (OECD 404) (rabbit)

• **on the eye:**

Not classified as irritating to eyes. (OECD 405) (rabbit)

• **Inhalation:**

May cause respiratory irritation.

• **Sensitization**

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause sensitisation by skin contact.

• **Carcinogenicity:**

Not considered to be carcinogen.

• **Mutagenicity:**

Is not considered genotoxic.

• **Reproductive toxicity:**

Is not considered hazardous to the reproduction.

<u>CAS Number</u>	<u>Description</u>	<u>% Weight</u>	<u>Carcinogen Rating</u>
64742-95-6	Solvent Naptha	1% - 1.0%	Solvent Naptha: EU REACH: Present (P)
98-82-8	1-Methylethylbenzene	0% - 0.1%	1-Methylethylbenzene: IARC: Possible human carcinogen OSHA: listed

Section 12 - Ecological Information

• **Toxicity**

• **Aquatic toxicity:** The product does not have any known adverse effects on the aquatic organisms tested.

• **Persistence and degradability:** The product is not readily biodegradable

• **Bioaccumulative potential:** Not bioaccumulable

Component Ecotoxicity

Propylene Carbonate	LC50 96 h Cyprinus carpio >1000 mg/L [semi-static] (IUCLID) EC50 48 h Daphnia magna >500 mg/L (IUCLID) EC50 72 h Desmodesmus subspicatus >500 mg/L (IUCLID)
Solvent Naptha	LC50 96 h Oncorhynchus mykiss 9.22 mg/L (IUCLID) EC50 48 h Daphnia magna 6.14 mg/L (IUCLID)
Dodecanoic acid, 1,1'-(dibutylstannylene) ester	Ecotoxicity Very toxic to aquatic life with long lasting effects . Persistence and degradability No data is available on the degradability of this product.
2,6-Dimethylheptan-4-one	LC50 96 h Oncorhynchus mykiss 140 mg/L [semi-static] (IUCLID) EC50 96 h Pseudokirchneriella subcapitata 100 mg/L (IUCLID)
1-Methylethylbenzene	LC50 96 h Pimephales promelas 6.04 - 6.61 mg/L (EPA); LC50 96 h Oncorhynchus mykiss 4.8 mg/L (IUCLID); LC50 96 h Oncorhynchus mykiss 2.7 mg/L [semi-static] (EPA); LC50 96 h Poecilia reticulata 5.1 mg/L [semi-static] (EPA) EC50 48 h Daphnia magna 0.6 mg/L (IUCLID); EC50 48 h Daphnia magna 7.9 - 14.1 mg/L [Static] (EPA) EC50 72 h Pseudokirchneriella subcapitata 2.6 mg/L (EPA)

Section 13 - Disposal Considerations

• **Waste treatment methods**

• **Recommendation:**

Discharging waste into rivers and drains is forbidden.
Incinerate at a licensed installation.
Disposal must be made according to federal, state and local regulations.

• **Waste disposal key:**

EPA Hazardous Waste - NO

• **Uncleaned packagings:**

Contaminated packaging materials must be disposed of in the same manner as the product.

• **Recommendation:**

Allow it to drain thoroughly.
Thoroughly emptied and clean packagings may be recycled.
Disposal must be made according to official regulations.

Section 14 - Transport Information

<u>Agency</u>	<u>Proper Shipping Name</u>	<u>UN Number</u>	<u>Packing Group</u>	<u>Hazard Class</u>
ADR		NOT regulated.		
ADN		NOT regulated.		
IATA		NOT regulated.		
DOT		NOT regulated.		

Section 15 - Regulatory Information

• **National legislation**

• **Safety, health and environmental regulations/legislation specific for the substance or mixture**

• **Sara Section 312**

Fire Hazard - NO
Reactive Hazard - YES
Release of Pressure - NO
Acute Health Hazard - YES
Chronic Health Hazard - YES

- **Section 355 (extremely hazardous substances):** Substance is not listed.
- **Section 313 (Specific toxic chemical listings):**
CERCLA RQ 100 lbs for 822-06-0
822-06-0 hexamethylene-di-isocyanate
- **Carcinogenic categories**
- **EPA (Environmental Protection Agency)** Substance is not listed.
- **IARC (International Agency for Research on Cancer)** Substance is not listed.
- **NTP (National Toxicology Program)** Substance is not listed. · Inventory status: · **Australian Inventory of Chemical Substances (AICS)** Substance is listed.
- **Canadian Domestic Substance List (DSL)** Substance is listed.
- **Canadian Non Domestic Substance List (NDSL)** Substance is not listed.
- **Chinese Chemical Inventory of Existing Chemical Substances (CIECS)** Substance is listed.
- **European EINECS/ELINCS Listing** Substance is listed.
- **Japan Existing and New chemical Substance List (ENCS)** Substance is listed.
- **Korea Existing Chemical Inventory (KECI)** Substance is listed.
- **Philippines Inventory of Chemicals and Chemical Substances (PICCS)** Substance is listed.
- **TSCA listing** Substance is listed.
- **Other regulations, limitations and prohibitive regulations**
- **State of California, Proposition 65:** · Chemicals known to cause cancer: Substance is not listed.
- **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.
- **Chemicals known to cause developmental toxicity:** Substance is not listed.

The state of California Safe Drinking Water and Toxic Enforcement Act of 1986 "Proposition 65" Warning, this product can expose you to chemicals which are known to the state of California to cause cancer. For more information go to www.p65warnings.ca.gov.

State of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): WARNING!
This product contains the following chemicals which are listed by the State of California as carcinogenic or a reproductive toxin:

R2K List

28182-81-2 Hexamethylene Diisocyanate

Country

Regulation

All Components Listed

Section 16 - Other Information

The material contained in this Safety Data Sheet is based on information supplied to Umaco, Inc. by the raw material suppliers of the individual components of this product. Umaco, Inc. believes this information is truthful and reliable. However, no warranty is expressed or implied regarding the accuracy of this information, or of any product, method or apparatus mentioned and you must make your own determination of its suitability and completeness for your own use, for the protection of the environment, and health and safety of your employees and users of this material. As more information becomes available from our vendors additional revisions will be forthcoming.

Date Prepared: 12/12/2022