


Safety Data Sheet

Umaco Ultra-Shield 200 (Side A)

1. Chemical Product and Manufacturer Identification

Product Name	Umaco Ultra-Shield 200 (Side A)		
Molecular Formula	Not applicable	Molecular Mass	Not applicable
Manufacturer	Umaco, Inc.		
Address	60 Rear Newhall Street Lowell, MA 01852		
Emergency Phone	Chemtrec 800-424-9300	Information Phone	978-453-8881
Revised Date	February 26 , 2023		

2. Hazards Identification

GHS hazard category	Acute toxicity, Oral(Category 4);Acute toxicity, Dermal(Category 4);Skin irritation(Category 1B);Skin sensitization (Category 1);Eye irritation(Category 2);Acute toxicity, Inhalation (Category 4); long-term hazard(Category 3).
Pictogram and signal word	 Warning.
Hazard statement	H302 May harmful if swallowed. H312 May harmful in contact with skin. H315 May causes skin irritation. H317 May cause an allergic skin reaction. H332 May harmful if inhaled H412 May harmful to aquatic life with long lasting effects.
Precautionary statement(s)	P261 Do not breathe gas/mist/vapors/spray. P264 Wash skin thoroughly after handling. P273 Avoid release to the environment. P280 Wear protective gloves/eye protection/face protection. P305 +P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Safe storage	P405 Should be locked and keep it safe.
Disposal measures	P501 Disposal of this product and container shall comply with all local, regional, national and international regulations.
Other Dangers	No data.

3. Composition/Information on Ingredients

Component	Range (% by Wt)	CAS No.
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Epoxy resin	100%	25068-38-6
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4. First Aid Measures

Skin contact	Immediately flush skin with plenty of water for at least 15 minutes.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.
Inhalation	Remove to fresh air. Get medical attention for any breathing difficulty.
Ingestion	If large amounts were swallowed, give water to drink and get medical advice.

5. Fire Fighting Measures

Types of hazard	Slight fire hazard when exposed to heat or flame. Containers can build up pressure if exposed to heat and/or fire.
Hazardous combustion products	Carbon monoxide and carbon dioxide during combustion or oxidation.
Fire-fighting measures	Dry chemical, foam or carbon dioxide.
Special Information	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6. Accidental Release Measure

<p>Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Removal of ignition sources. Use non-sparking tools and equipment. Wear self-contained positive pressure breathing apparatus. Contain and recover liquid when possible. Avoid runoff into storm sewers and ditches which lead to waterways. In case if a small amount of release, absorb spill with inert material (e.g. vermiculite, sand or earth), as well as flush with plenty of water and dilute into the wastewater system. In case of great amount of release, collect spill with causeway or trench. A vapor suppressing foam may be used to reduce vapors. Place in suitable container or tanks, recycle or ship to the waste plant.</p>
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7. Handling and Storage Measures

Handling	Closed operation and full ventilation. Recommend to wear filter mask. Keep away from fire and heat sources. Prohibit smoking in work area. Avoid strong oxidizing agents, strong acids and strong bases exposure. To equipped with the appropriate type and quantity of fire-fighting devices and equipment for leakage emergency. Empty containers of this material may be hazardous since they retain residues.
Storage	Store in a tightly closed container and place in a cool, well-ventilated storehouse. Keep away from heat, sparks, and flame. Keep away from sources of ignition. Keep from contact with strong oxidizing agents, strong acids and strong bases. Prohibit mix-storage. Strong areas should be equipped with handling equipment for emergency spill and suitable absorb materials. Protect against physical damage.

8. Exposure Controls/ Personal Protection

Occupational	None established.
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exposure limits	
Engineering controls	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. Explosion proof exhaust ventilation should be used. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
Inhalation protection	A half face piece particulate respirator may be worn for high exposure concentration.
Eye protection	Wear appropriate chemical safety goggles if necessary.
Skin protection	Wear appropriate anti-static clothes and rubber oil-resistant gloves.
Other protection	Do not eat, drink, or smoke in work area.

9. Chemical and Physical Properties

Appearance and color	Clear and transparent liquid	Color (Gardner)	≤1
Density((Water=1))	1.15 [g/cm ³]	Mixed Viscosity (25°C)	700-1200 [cps]
Odor	Odorless	PH Value	>7
Vapor pressure (kPa)	No information found	Critical pressure (MPa)	No information found
Critical temperature (°C)	No information found	Heat of combustion(kJ/mol)	No information found
Octanol /water partition coefficient as log Pow	No information found	Flash point (°C)	>100°C(Closed cup)
Boiling point (°C)	No information found	Solubility	Slightly soluble in water
Auto-ignition temperature	No information found	Explosion property	No Explosion
Main purpose	Epoxy coatings and adhesives		
Other properties	No information found		

10. Stability and Reactivity

Stability	Stable under ordinary conditions of use and storage.
Incompatibilities	Strong oxidizing agents, strong acids, strong bases.
Conditions to avoid	Heat, flames, ignition sources and incompatibles.
Hazardous polymerization	May cause heat release by acids.
Hazardous decomposition	Carbon dioxide, carbon monoxide.

11. Toxicological Information

Acute toxicity	Epoxy resin (CAS: 25068-38-6): Rat LD ₅₀ =13600mg/kg;
Skin corrosion/irritation	May cause skin burns.
Serious eye damage/eye irritation	May harmful if eyes contact
Respiratory or skin	May cause skin irritation if contact frequently.
Germ cell mutagenicity	No information found.(OECD471)
Carcinogenicity	This material is not listed in IARC (International Agency for Research on Cancer) Category.
Reproductive toxicity	No information found (OECD422).
STOT—Single exposure	No information found.

STOT—Repeated exposure	No information found.
Aspiration hazard	No information found.
Others	No information found.

12. Ecological Information

Ecotoxicity	Epoxy resin (CAS: 25068-38-6): Rat EC ₅₀ =1.4mg/kg (48 Hours);
Bio-degradability	No information found (OECD301B).
Degradability	No information found.
Bioaccumulative potential	Low.
Mobility in soil	No information found.
Others	No information found.

13. Disposal Information

Disposal Property	This product is listed in the National hazardous waste> category.
Disposal measures	Proposed disposal by incineration.
Notes	Processing, use or contamination of this product may change the waste management options. Local disposal regulations may differ from Chinese regulations. Dispose of container and unused contents in accordance with local country or state regulations.

14. Transportation Information

Regulations	IATA DGR	IMDG Code
UN No.	Not regulated.	Not regulated.
Proper Shipping Name	Not regulated.	Not regulated.
Hazard Class	Not regulated.	Not regulated.
Packing Group	Not regulated.	Not regulated.
Packing Method	Iron drum	Iron drum
Environmental hazards	This material is not environmentally hazardous substance and marine pollutant according to AND (European Provision Concerning the International Carriage of Dangerous Goods on Inland Waterway) and this substance is not subject to IMDG Code (International Maritime Dangerous Goods Code).	
Notes	Not regulated.	

15. Regulatory Information

<p>Domestic authority regulations:</p> <p>Regulations on the Safety Administration of Dangerous Chemicals (2011), workplace safety use of chemicals ([1996] Labor Department No.423). For the safety use, production, storage, transportation and unloading, all the corresponding provisions. This material is not listed in General rule for classification and hazard communication of chemicals (GB 13690-2009).</p> <p>International Regulations:</p>
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All materials are not listed in CERCLA (Comprehensive Environmental Response Compensation and Liability Act.)

16. Other Information

Revised Date	February 26 , 2023
Other information	-----
Disclaimer:	<p>This SDS conforms to the requirements of Safety Data Sheet for Chemical Products- Content and Order of Sections (ISO11014:2009). This SDS is offered to you in good faith as accurate. We have received and information contained in this data sheet which we received from sources outside our company. We believe that information to be correct but cannot guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and / or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as a permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.</p>


Safety Data Sheet

Umaco Ultra-Shield 200 (Side B)

1. Chemical Product and Manufacturer Identification

Product Name	Umaco Ultra-Shield 200 (Side B)		
Molecular Formula	Not applicable	Molecular Mass	Not applicable
Manufacturer	Umaco, Inc.		
Address	60 Rear Newhall Street Lowell, MA 01852		
Emergency Phone	Chemtrec 800-424-9300	Information Phone	978-453-8881
Revised Date	February 26 , 2023		

2. Hazards Identification

GHS hazard category	Acute toxicity, Oral(Category 4);Acute toxicity, Dermal(Category 4);Skin irritation(Category 1B);Skin sensitization (Category 1);Eye irritation(Category 2);Acute toxicity, Inhalation (Category 4); long-term hazard(Category 3).
Pictogram and signal word	 Warning.
Hazard statement	H302 May harmful if swallowed. H312 May harmful in contact with skin. H315 May causes skin irritation. H317 May cause an allergic skin reaction. H332 May harmful if inhaled H412 May harmful to aquatic life with long lasting effects.
Precautionary statement(s)	P261 Do not breathe gas/mist/vapors/spray. P264 Wash skin thoroughly after handling. P273 Avoid release to the environment. P280 Wear protective gloves/eye protection/face protection. P305 +P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Safe storage	P405 Should be locked and keep it safe.
Disposal measures	P501 Disposal of this product and container shall comply with all local, regional, national and international regulations.
Other Dangers	No data.

3. Composition/Information on Ingredients

Component	Range (% by Wt)	CAS No.
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4,4'-Diaminodicyclohexylmethane	25%	1761-71-3
Polyetheramine	45%	9046-10-0
Benzyl Alcohol	30%	100-51-6

4. First Aid Measures

Skin contact	Immediately flush skin with plenty of water for at least 15 minutes.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.
Inhalation	Remove to fresh air. Get medical attention for any breathing difficulty.
Ingestion	If large amounts were swallowed, give water to drink and get medical advice.

5. Fire Fighting Measures

Types of hazard	Slight fire hazard when exposed to heat or flame. Containers can build up pressure if exposed to heat and/or fire.
Hazardous combustion products	Carbon monoxide and carbon dioxide during combustion or oxidation.
Fire-fighting measures	Dry chemical, foam or carbon dioxide.
Special Information	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6. Accidental Release Measure

<p>Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Removal of ignition sources. Use non-sparking tools and equipment. Wear self-contained positive pressure breathing apparatus. Contain and recover liquid when possible. Avoid runoff into storm sewers and ditches which lead to waterways. In case if a small amount of release, absorb spill with inert material (e.g. vermiculite, sand or earth), as well as flush with plenty of water and dilute into the wastewater system. In case of great amount of release, collect spill with causeway or trench. A vapor suppressing foam may be used to reduce vapors. Place in suitable container or tanks, recycle or ship to the waste plant.</p>
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7. Handling and Storage Measures

Handling	Closed operation and full ventilation. Recommend to wear filter mask. Keep away from fire and heat sources. Prohibit smoking in work area. Avoid strong oxidizing agents, strong acids and strong bases exposure. To equipped with the appropriate type and quantity of fire-fighting devices and equipment for leakage emergency. Empty containers of this material may be hazardous since they retain residues.
Storage	Store in a tightly closed container and place in a cool, well-ventilated storehouse. Keep away from heat, sparks, and flame. Keep away from sources of ignition. Keep from contact with strong oxidizing agents, strong acids and strong bases. Prohibit mix-storage. Strong areas should be equipped with handling equipment for emergency spill and suitable absorb materials. Protect against physical damage.

8. Exposure Controls/ Personal Protection

Occupational exposure limits	None established.
Engineering controls	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. Explosion proof exhaust ventilation should be used. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
Inhalation protection	A half face piece particulate respirator may be worn for high exposure concentration.
Eye protection	Wear appropriate chemical safety goggles if necessary.
Skin protection	Wear appropriate anti-static clothes and rubber oil-resistant gloves.
Other protection	Do not eat, drink, or smoke in work area.

9. Chemical and Physical Properties

Appearance and color	Clear and transparent liquid	Color (Gardner)	≤2
Amine Value(JIS Method)	300 [mgKOH/g]	Viscosity (25°C)	250-450 [cps]
Density((Water=1))	0.99 [g/cm ³]	Relative vapor density (air=1)	No information found
Odor	Ammoniacal	PH Value	>7
Vapor pressure (kPa)	No information found	Critical pressure (MPa)	No information found
Critical temperature (°C)	No information found	Heat of combustion(kJ/mol)	No information found
Octanol /water partition coefficient as log Pow	No information found	Flash point (°C)	>100°C(Closed cup)
Boiling point (°C)	>200	Solubility	Slightly soluble in water
Auto-ignition temperature	No information found	Explosion property	No Explosion
Main purpose	Epoxy coatings and adhesives		
Other properties	No information found		

10. Stability and Reactivity

Stability	Stable under ordinary conditions of use and storage.
Incompatibilities	Strong oxidizing agents, strong acids, strong bases.
Conditions to avoid	Heat, flames, ignition sources and incompatibles.
Hazardous polymerization	May cause heat release by acids.
Hazardous decomposition	Carbon dioxide, carbon monoxide.

11. Toxicological Information

Acute toxicity	Benzyl Alcohol (CAS: 100-51-6) : Rat LD ₅₀ =1230mg/kg; Polyetheramine(9046-10-0): Rat LD ₅₀ =242mg/kg
Skin corrosion/irritation	May cause skin burns.
Serious eye damage/eye irritation	May harmful if eyes contact
Respiratory or skin	May cause skin irritation if contact frequently.
Germ cell mutagenicity	No information found.(OECD471)

Carcinogenicity	This material is not listed in IARC (International Agency for Research on Cancer) Category.
Reproductive toxicity	No information found (OECD422).
STOT—Single exposure	No information found.
STOT—Repeated exposure	No information found.
Aspiration hazard	No information found.
Others	No information found.

12. Ecological Information

Ecotoxicity	Benzyl Alcohol (CAS: 100-51-6) : Rat EC ₅₀ =55mg/kg (24 Hours);
Bio-degradability	No information found (OECD301B).
Degradability	No information found.
Bioaccumulative potential	Low.
Mobility in soil	No information found.
Others	No information found.

13. Disposal Information

Disposal Property	This product is listed in the National hazardous waste> category.
Disposal measures	Proposed disposal by incineration.
Notes	Processing, use or contamination of this product may change the waste management options. Local disposal regulations may differ from Chinese regulations. Dispose of container and unused contents in accordance with local country or state regulations.

14. Transportation Information

Regulations	IATA DGR	IMDG Code
UN No.	Not regulated.	Not regulated.
Proper Shipping Name	Not regulated.	Not regulated.
Hazard Class	Not regulated.	Not regulated.
Packing Group	Not regulated.	Not regulated.
Packing Method	Iron drum	Iron drum
Environmental hazards	This material is not environmentally hazardous substance and marine pollutant according to AND (European Provision Concerning the International Carriage of Dangerous Goods on Inland Waterway) and this substance is not subject to IMDG Code (International Maritime Dangerous Goods Code).	
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16. Other Information

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