



DEFENDER PRIME EPOXY PRIMER PART A

SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

PRODUCT NAME	DEFENDER PRIME EPOXY PRIMER, TAN, PART A
MANUFACTURER'S NAME	UMI COATINGS
ADDRESS	2870 CRESTWOOD BLVD, STE B, IRONDALE, AL 35210
EMERGENCY PHONE	CHEMTREC: 800-424-9300
INFORMATION PHONE NUMBER	(205) 957-0020
FAX	N/A

SECTION 2. HAZARDS IDENTIFICATION

GHS RATINGS

Flammable liquid	2	Flash point < 23°C and initial boiling point > 35°C (95°F)
Skin corrosive	1C	Destruction of dermal tissue: Exposure < 4 hours Observation < 14 days, visible necrosis in at least one animal
Eye corrosive	1	Serious eye damage: Irreversible damage 21 days after exposure, Draize score: Corneal opacity >= 3, Iritis > 1.5
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
Reproductive toxin	1B	Presumed, Based on experimental animals





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GHS HAZARDS

H225 Highly flammable

H314 Causes severe skin burns and eye damage

H317 May cause an allergic skin reaction

H318 Causes serious eye damage

H340 May cause genetic defects

H350 May cause cancer

H360 May damage fertility or the unborn child

GHS PRECAUTIONS

P201 Obtain special instructions before use

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

P210 Keep away from heat/sparks/open flames/hot surfaces - No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash equipment and contaminated skin thoroughly after handling.

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

P310 Immediately call a POISON CENTER or doctor/physician

P321 Wash contaminated skin, follow Physcian's instructions for treatment.

P363 Wash contaminated clothing before reuse

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P302+P352 IF ON SKIN: Wash with soap and water

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P305+P351+P338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing

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

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

P370+P378 In case of fire: Use CO2, water spray, foam, or dry chemical to extinguish.

P405 Store locked up

P403+P235 Store in a well ventilated place. Keep cool

P501 Dispose of contents/container in accordance to approriate regulations and laws.







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SIGNAL WORD: DANGER







SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

CAS	CHEMICAL NAME	% BY WEIGHT
98-56-6	Benzene, 1-chloro-4-(trifluoromethyl)	19.00%
13463-67-7	Titanium dioxide	10.00-20.00%
68410-23-1	Fatty acid polyamide	9.00%
78-93-3	Methyl ethyl ketone	3.00%
1330-20-7	Xylol	3.00%
90-72-2	2,4,6-Tri(dimethylaminomethyl)phenol	2.00%
100-41-4	Benzene, ethyl-	1.00%
64742-95-6	Aromatic naphtha, type I	0.20%

SECTION 4. FIRST AID MEASURES

Move the exposed person to fresh air. If vapors are still present the rescuer should wear the appropriate mask. If breathing is irregular or arrest occurs use artificial respiration by trained personnel. Loosen tight fitting clothing, Get medical aid immediately.

Immediately flush eyes with plenty of water for at least 15 minutes. Regularly lift upper and lower eyelids during flushing. Remove contact lenses. Get medical aid.

Flush contaminated skin with water. Remove contaminated cloths, avoiding skin contact while doing so. Get medical attention. Clean contaminated shoes thoroughly before reuse.

Wash mouth out thoroughly. Do not induce vomiting unless directed by medical personnel. Get medical attention No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been inhaled or ingested.







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SECTION 5. FIRE FIGHTING MEASURES

Flash Point: 16 C (61 F)

LEL: 1.0% UEL: 8.0%

For flammable liquid: Can burst from pressure if in sealed container and heated, with risk of subsequent explosion. Vapors are heavier than air, can spread on ground and collect in low lying areas. Runoff to a collection area can create a fire or explosion hazard.

Dry Chemical, CO2, water spray)(fog), or foam. Do not use water jet. Isolate scene removing persons not trained if there is a firem. Move containers from fire area if there is no risk. Use water spray to keep fire exposed containers cool.

Decomposition products man include the following materials: Carbon Oxides. Fire fighters should wear appropriate protective equipment and well-contain breathing apparatus.

Use dry chemical, CO2, water spray(fog) or foam. Do not use water jet.

SECTION 6. ACCIDENTAL RELEASE MEASURES

No action should be taken with untrained personnel. Evacuate surrounding areas. Do not touch or walk through spill. Shut off all ignition sources. Provide adequate ventilation. Use appropriate protective equipment. Do not breath dust, mist, or vapor.

Stop leak if without risk. Move containers form spill area. Dilute with water and mop up if water-soluble, or absorb with inert dry material and place in appropriate waste container. Dispose via licensed waste disposal.

Stop leak if without risk. Move containers from area. Approach from upwing. Prevent run off to water source, basements, sewers, or confined areas. Contain and collect spillage with non combustible, absorbent materials, sand, vermiculite, diatomic earth and dispose by local regulation. Use spark-proof tools and explosion proof equipment.

SECTION 7. HANDLING AND STORAGE

Use appropriate personal protective equipment. No eating, drinking, or smoking in areas of use. Persons with a history of skin sensitization should not be employed in any process in which this product is used. Avoid exposure during pregnancy. Do not ingest. Use adequate ventilation or respirator. Keep in approriate container avoiding open flames, sparks or other ignition sources. Use explosion proof equipment and non sparking tools. Use proper grounding procedures.







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Store in designated flamable liquid storage areas. Protect from direct sunlight in dry, cool ventilated areas. Keep food and drink away from area. Eliminate all ignition sources. Opened containers must be carefully resealed and kept upright. Do not use unlabled containers. Use appropriate containment.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CHEMICAL NAME/CAS NO	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Benzene, 1-chloro-4- (trifluoromethyl)- 98-56-6	Not Established	Not Established	Not Established
Titanium dioxide 13463-67-7	15 mg/m3 TWA (total dust)	10 mg/m3 TWA	Not Established
Fatty acid polyamide 68410-23-1	Not Established	Not Established	Not Established
Methyl ethyl ketone 78-93-3	200 ppm TWA; 590 mg/m3 TWA	300 ppm STEL 200 ppm TWA	NIOSH: 200 ppm TWA; 590 mg/m3 TWA 300 ppm STEL; 885 mg/m3 STEL
Xylol 1330-20-7	100 ppm TWA; 435 mg/m3 TWA	150 ppm STEL 100 ppm TWA	Not Established
2,4,6-Tri (dimethylaminomethyl) phenol 90-72-2	Not Established	Not Established	Not Established
Benzene, ethyl100-41-4	100 ppm TWA; 435 mg/m3 TWA	20 ppm TWA	NIOSH: 100 ppm TWA; 435 mg/m3 TWA 125 ppm STEL; 545 mg/m3 STEL
Aromatic naphtha, type I 64742- 95-6	Not Established	Not Established	Not Established

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to meet exposure to airborne contaminates above statutory limits. Use appropriate controls to keep concentration below explosive limits.

Ensure adequate ventilation by standard emission testing procedures, Use appropriate respiratory equipment when needed.

Assure safety training of operators in regards to handling liquids and vapors. Follow local regulatory rules of exposure control using air purifying or air supplied mask as needed. Use appropriate protective equipment according to OSHA and NAFTA standards and labeling. Ensure eye wash stations and safety showers are available.

Wash contaminated gear and clothing before reuse.





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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL AND CHEMICAL PROPERTIES

EVAPORATION RATE	NA
AUTOIGNITION TEMP	NA
COATING VOC LB/GA	1.63
APPEARANCE	TAUPE
VAPOR PRESURE	NA
VAPOR DENSITY	NA
DENSITY	19.71
FREEZING POINT	NA
BOILING RANGE	137C
FLAMMABILITY	NA
PARTITION COEFFICIENT	NA
DECOMPOSITION TEMP	NA
VISCOSITY	NA
ODOR	E
ODOR THRESHOLD	NO DATA
PH	NA
MELTING POINT	NA
SOLUBILITY	NA
FLASH POINT	61°F,16°C
EXPLOSIVE LIMITS	NA

SECTION 10. STABILITY AND REACTIVITY

These materials are stable. Under normal conditions of storage and use hazardous reactions or polymerization will not occur. Avoid all source of ignitions, sparks or flames. Do not allow vapor to accumulate in low lying areas.

Do not expose to strong oxidizing agents, strong acids, or aliphatic amines.

Under normal use, no hazardous decomposition products are produced.

Hazardous polymerization will not occur.





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SECTION 11. TOXICOLOGICAL INFORMATION

MIXTURE TOXICITY

Inhalation Toxicity LC50: 91mg/L

ROUTES OF ENTRY

Exposure to this material may affect the following organs: Eyes, Central Nervous System, Skin, Respiratory System

CARCINOGENICITY

The following chemicals comprise 0.1% or more of this mixture and are listed and/or classified as carcinogens or potential carcinogens by NTP, IARC, OSHA (mandatory listing), or ACGIH (optional listing).

CAS	DESCRIPTION	% WEIGHT	CARCINOGEN RATING
64742-95-6	Aromatic naphtha, type I	0.2%	Aromatic naphtha, type I: EU REACH: Present (P)
13463-67-7	Titanium dioxide	10 to 20%	Titanium dioxide: NIOSH: potential occupational carcinogen IARC: Possible human carcinogen OSHA: listed
100-41-4	Benzene, ethyl-	1%	Benzene, ethyl-: IARC: Possible human carcinogen OSHA: listed

This product can be a skin and eye sensitizer. The material should washed from skin or flushed from eyes immediately. Contaminated clothing should be removed. Wear proper protective equipment. Any other acute toxicological information can be found in section 11.

Approximately 2% of the population can develop skin sensitivity with increasing inflammation and allergic reactions with repeated exposure.

SECTION 12. ECOLOGICAL INFORMATION

No known significant effects or critical hazards.







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COMPONENT ECOTOXICITY

Benzene, 1-chloro-4- (trifluoromethyl)-

48 Hr EC50 Daphnia magna: 3.68 mg/L

Methyl ethyl ketone

96 Hr LC50 Pimephales promelas: 3130 - 3320 mg/L [flow-through] 48 Hr EC50 Daphnia magna: >520 mg/L; 48 Hr EC50 Daphnia magna: 4025 - 6440 mg/L [Static]

Xylol

96 Hr LC50 Pimephales promelas: 13.4 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 2.661 - 4.093 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 13.5 - 17.3 mg/L; 96 Hr LC50 Lepomis macrochirus: 13.1 - 16.5 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 19 mg/L; 96 Hr LC50 Lepomis macrochirus: 7.711 - 9.591 mg/L [static]; 96 Hr LC50 Pimephales promelas: 23.53 - 29.97 mg/L [static]; 96 Hr LC50 Cyprinus carpio: 780 mg/L [semi-static]; 96 Hr LC50 Cyprinus carpio: >780 mg/L; 96 Hr LC50 Poecilia reticulata: 30.26 - 40.75 mg/L [static] 48 Hr EC50 water flea: 3.82 mg/L; 48 Hr LC50 Gammarus lacustris: 0.6 mg/L

Benzene, ethyl-

96 Hr LC50 Oncorhynchus mykiss: 11.0 - 18.0 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 4.2 mg/L [semi-static]; 96 Hr LC50 Pimephales promelas: 7.55 - 11 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 32 mg/L [static]; 96 Hr LC50 Pimephales promelas: 9.1 - 15.6 mg/L [static]; 96 Hr LC50 Poecilia reticulata: 9.6 mg/L [static]

48 Hr EC50 Daphnia magna: 1.8 - 2.4 mg/L

72 Hr EC50 Pseudokirchneriella subcapitata: 4.6 mg/L; 96 Hr EC50

 $Pseudokirchneriella\ subcapitata: > 438\ mg/L; 72\ Hr\ EC50\ Pseudokirchneriella\ subcapitata: 2.6-11.3\ mg/L\ [static]; 96\ Hr\ EC50\ Pseudokirchneriella\ subcapitata: 2.6-11.3\ mg/L\ [static];$

Pseudokirchneriella subcapitata: 1.7 - 7.6 mg/L [static]

Aromatic naphtha, type I

96 Hr LC50 Oncorhynchus mykiss: 9.22 mg/L 48 Hr EC50 Daphnia magna: 6.14 mg/L

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

Minimize the generation of waste whenever possible. Dispose by license waste disposal contractor. Comply with local. regional, and fedral disposal regulations and legislation.





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SECTION 14. Transport Information

AGENCY	PROPER SHIPPING NAME	UN NUMBER	PACKING GROUP	HAZARD CLASS
DOT	PAINT	1263	II	3
IOTA	PAINT	1263	II	3

SECTION 15. REGULATORY INFORMATION

All components are in compliance with TSCA inventory listing or are exempt.

COUNTRY REGULATION ALL COMPONENTS LISTED

EU RISK PHRASES - NONE SAFETY PHRASE - NONE

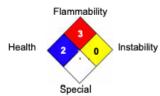
SECTION 16. Other Information

HMIS and NAFTA rating are on a 0 to 4 rating scale with 0 minimal hazard, and 4 represent significant danger or hazard.

Hazardous Material Information System (HMIS)



National Fire Protection Association (NFPA)



The information provided herein was believed by UMI Coatings to be accurate and reliable, but the user is responsible to comply with all laws and procedures whether included or not. UMI Coatings makes no warranty expressed of implied concerning the accuracy of the infomation except the product will comply with UMI Coatings specifications.





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SECTION 1. IDENTIFICATION

PRODUCT NAME	DEFENDER PRIME EPOXY PRIMER PART B
MANUFACTURER'S NAME	UMI COATINGS
ADDRESS	2870 CRESTWOOD BLVD, STE B, IRONDALE, AL 35210
EMERGENCY PHONE	CHEMTREC: 800-424-9300
INFORMATION PHONE NUMBER	(205) 957-0020
FAX	N/A

SECTION 2. HAZARDS IDENTIFICATION

GHS RATINGS

Flammable liquid	2	Flash point < 23°C and initial boiling point > 35°C (95°F)	
Oral Toxicity	Acute Tox. 2	Oral>5+<=50mg/kg	
Dermal Toxicity	Acute Tox. 3	Dermal>200+<=1000mg/kg	
Skin corrosive	2	Reversible adverse effects in dermal tissue, Draize score: >= 2.3 < 4.0 or persistent inflammation	
Eye corrosive	2A	Eye irritant: Subcategory 2A, Reversible in 21 days	
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 1B	Presumed Human Carcinogen, Based on demonstrated animal carcinogenicity	
Reproductive toxin	1	Presumed, Based on experimental animals	
Aspiration hazard		Aspiration Toxicity Category 1: Known (regarded)- human evidence - hydrocarbons with kinematic viscosity ? 20.5 mm2/s at 40° C.	



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GHS HAZARDS

H225 Highly flammable

H300 Fatal if swallowed

H304 May be fatal if swallowed and enters airways

H311 Toxic in contact with skin

H315 Causes skin irritation

H317 May cause an allergic skin reaction

H319 Causes serious eye irritation

H340 May cause genetic defects

H350 May cause cancer

H360 May damage fertility or the unborn child

GHS PRECAUTIONS

P201 Obtain special instructions before use

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

P210 Keep away from heat/sparks/open flames/hot surfaces - No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash equipment and contaminated skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product

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

P312 Call a POISON CENTER or doctor/physician if you feel unwell

P321 Wash contaminated skin, follow Physician's instructions for treatment.

P322 Specific measures Remove contaminated clothing and protective equipment.

P330 Rinse mouth

P331 Do NOT induce vomiting

P361 Remove/Take off immediately all contaminated clothing

P362 Take off contaminated clothing and wash before reuse

P363 Wash contaminated clothing before reuse

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

P302+P352 IF ON SKIN: Wash with soap and water

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P305+P351+P338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing







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P308+P313 If exposed or concerned: Get medical advice/attention

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

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

P337+P313 Get medical advice/attention

P370+P378 In case of fire: Use CO2, water spray, foam, or dry chemical to extinguish.

P405 Store locked up

P403+P235 Store in a well ventilated place. Keep cool

P501 Dispose of contents/container in accordance to approriate regulations and laws.

SIGNAL WORD: DANGER



SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS NUMBER	% BY WEIGHT
Talc	14807-96-6	22.00%
Dimethyl carbonate	616-38-6	15.00%
Hexone	108-10-1	10.00%
Aromatic naphtha, type I	64742-95-6	8.00%
Kaolin	1332-58-7	7.00%
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	5.00%
Benzene, 1,2,4-trimethyl-	95-63-6	4.00%
Xylol	1330-20-7	3.00%
Benzene, ethyl-	100-41-4	0.90%





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SECTION 4. FIRST AID MEASURES

Move the exposed person to fresh air. If vapors are still present the rescuer should wear the appropriate mask. If breathing is irregular or arrest occurs use artificial respiration by trained personnel. Loosen tight fitting clothing, Get medical aid immediately.

Immediately flush eyes with plenty of water for at least 15 minutes. Regularly lift upper and lower eyelids during flushing. Remove contact lenses. Get medical aid.

Flush contaminated skin with water. Remove contaminated cloths, avoiding skin contact while doing so. Get medical attention. Clean contaminated shoes thoroughly before reuse.

Wash mouth out thoroughly. Do not induce vomiting unless directed by medical personnel. Get medical attention.

No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been inhaled or ingested.

SECTION 5. FIRE FIGHTING MEASURES

Flash Point: 15 C (59 F)

LEL: 1.0% UEL: 8.0%

For flammable liquid: Can burst from pressure if in sealed container and heated, with risk of subsequent explosion. Vapors are heavier than air, can spread on ground and collect in low lying areas. Runoff to a collection area can create a fire or explosion hazard.

Dry Chemical, CO2, water spray)(fog), or foam. Do not use water jet. Isolate scene removing persons not trained if there is a fire. Move containers from fire area if there is no risk. Use water spray to keep fire exposed containers cool.

Decomposition products man include the following materials: Carbon Oxides. Fire fighters should wear appropriate protective equipment and well-contain breathing apparatus.

Use dry chemical, CO2, water spray(fog) or foam. Do not use water jet.



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SECTION 6. ACCIDENTAL RELEASE MEASURES

No action should be taken with untrained personnel. Evacuate surrounding areas. Do not touch or walk through spill. Shut off all ignition sources. Provide adequate ventilation. Use appropriate protective equipment. Do not breath dust, mist, or vapor.

Stop leak if without risk. Move containers form spill area. Dilute with water and mop up if water-soluble, or absorb with inert dry material and place in appropriate waste container. Dispose via licensed waste disposal.

Stop leak if without risk. Move containers from area. Approach from upwing. Prevent run off to water source, basements, sewers, or confined areas. Contain and collect spillage with non combustible, absorbent materials, sand, vermiculite, diatomic earth and dispose by local regulation. Use spark-proof tools and explosion proof equipment.

SECTION 7. HANDLING AND STORAGE

Use appropriate personal protective equipment. No eating, drinking, or smoking in areas of use. Persons with a history of skin sensitization should not be employed in any process in which this product is used. Avoid exposure during pregnancy. Do not ingest. Use adequate ventilation or respirator. Keep in approriate container avoiding open flames, sparks or other ignition sources. Use explosion proof equipment and non sparking tools. Use proper grounding procedures.

Store in designated flammable liquid storage areas. Protect from direct sunlight in dry, cool ventilated areas. Keep food and drink away from area. Eliminate all ignition sources. Opened containers must be carefully resealed and kept upright. Do not use unlabled containers. Use appropriate containment.





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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CHEMICAL NAME/CAS NO	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Talc 14807-96-6	Not Established	2 mg/m3 TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)	Not Established
Dimethyl carbonate 616-38-6	Not Established	Not Established	Not Established
Hexone 108-10-1	100 ppm TWA; 410 mg/m3 TWA	75 ppm STEL 20 ppm TWA	Not Established
Aromatic naphtha, type I 64742- 95-6	Not Established	Not Established	NIOSH: 200 ppm TWA; 590 mg/m3 TWA 300 ppm STEL; 885 mg/m3 STEL
Kaolin 1332-58-7	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)	2 mg/m3 TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)	Not Established
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3- epoxypropane 25068-38-6	Not Established	Not Established	Not Established
Benzene, 1,2,4-trimethyl95-63-6	Not Established	Not Established	NIOSH: 100 ppm TWA; 435 mg/m3 TWA 125 ppm STEL; 545 mg/m3 STEL
Xylol 1330-20-7	100 ppm TWA; 435 mg/m3 TWA	150 ppm STEL 100 ppm TWA	Not Established
Benzene, ethyl100-41-4	100 ppm TWA; 435 mg/m3 20 ppm TWA TWA	20 ppm TWA	

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to meet exposure to airborne contaminates above statutory limits. Use appropriate controls to keep concentration below explosive limits. Ensure adequate ventilation by standard emission testing procedures, Use appropriate respiratory equipment when needed. Assure safety training of operators in regards to handling liquids and vapors. Follow local regulatory rules of exposure control using air purifying or air supplied mask as needed. Use appropriate protective equipment according to OSHA and NAFTA standards and labeling. Ensure eye wash stations and safety showers are available. Wash contaminated gear and clothing before reuse.







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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL AND CHEMICAL PROPERTIES

EVAPORATION RATE	NA
AUTOIGNITION TEMP	NA
COATING VOC LB/GA	3.23
APPEARANCE	TAUPE
VAPOR PRESURE	NA
VAPOR DENSITY	NA
DENSITY	10.36
FREEZING POINT	NA
BOILING RANGE	137C
FLAMMABILITY	NA
PARTITION COEFFICIENT	NA
DECOMPOSITION TEMP	NA
VISCOSITY	NA
ODOR	E
ODOR THRESHOLD	NO DATA
PH	NA
MELTING POINT	NA
SOLUBILITY	NA
FLASH POINT	59°F,15°C
EXPLOSIVE LIMITS	NA

SECTION 10. STABILITY AND REACTIVITY

These materials are stable. Under normal conditions of storage and use hazardous reactions or polymerization will not occur. Avoid all source of ignitions, sparks or flames. Do not allow vapor to accumulate in low lying areas.

Do not expose to strong oxidizing agents, strong acids, or aliphatic amines.

Under normal use, no hazardous decomposition products are produced.

Hazardous polymerization will not occur.



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SECTION 11. TOXICOLOGICAL INFORMATION

MIXTURE TOXICITY

Oral Toxicity LD50: 46mg/kg Dermal Toxicity LD50: 646mg/kg Inhalation Toxicity LC50: 59mg/L

ROUTES OF ENTRY

Exposure to this material may affect the following organs: Blood, Eyes, Kidneys, Liver, Central Nervous System, Skin, Cardiovascular System, Respiratory System

CARCINOGENICITY

The following chemicals comprise 0.1% or more of this mixture and are listed and/or classified as carcinogens or potential carcinogens by NTP, IARC, OSHA (mandatory listing), or ACGIH (optional listing).

CAS	DESCRIPTION	% WEIGHT	CARCINOGEN RATING
100-41-4	Benzene, ethyl-	0.9%	Benzene, ethyl-: IARC: Possible human carcinogen OSHA: listed
108-10-1	Hexone	10%	Hexone: IARC: Possible human carcinogen OSHA: listed
64742-95-6	Aromatic naphtha, type I	8%	Aromatic naphtha, type I: EU REACH: Present (P)

This product can be a skin and eye sensitizer. The material should washed from skin or flushed from eyes immediately. Contaminated clothing should be removed. Wear proper protective equipment. Any other acute toxicalogical information can be found in section 11.

Approximately 2% of the population can develop skin sensitivity with increasing inflamation and allergic reactions with repeated exposure

SECTION 12. ECOLOGICAL INFORMATION

No known significant effects or critical hazards.



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COMPONENT ECOTOXICITY

Talc

48 Hr EC50 Daphnia magna: 3.68 mg/L

Hexone

96 Hr LC50 Pimephales promelas: 496 - 514 mg/L [flow-through]

48 Hr EC50 Daphnia magna: 170 mg/L

96 Hr EC50 Pseudokirchneriella subcapitata: 400 mg/L

Aromatic naphtha, type I

96 Hr LC50 Oncorhynchus mykiss: 9.22 mg/L

48 Hr EC50 Daphnia magna: 6.14 mg/L

Benzene, 1,2,4-trimethyl-

96 Hr LC50 Pimephales promelas: 7.19 - 8.28 mg/L [flow-through]

48 Hr EC50 Daphnia magna: 6.14 mg/L

Xylol

96 Hr LC50 Pimephales promelas: 13.4 mg/L [flow-through];

96 Hr LC50 Oncorhynchus mykiss: 2.661 - 4.093 mg/L [static];

96 Hr LC50 Oncorhynchus mykiss: 13.5 - 17.3 mg/L;

96 Hr LC50 Lepomis macrochirus: 13.1 - 16.5 mg/L [flow-through];

96 Hr LC50 Lepomis macrochirus: 19 mg/L;

96 Hr LC50 Lepomis macrochirus: 7.711 - 9.591 mg/L [static];

96 Hr LC50 Pimephales promelas: 23.53 - 29.97 mg/L [static];

96 Hr LC50 Cyprinus carpio: 780 mg/L [semi-static];

96 Hr LC50 Cyprinus carpio: >780 mg/L;

96 Hr LC50 Poecilia reticulata: 30.26 - 40.75 mg/L [static]

48 Hr EC50 water flea: 3.82 mg/L;

48 Hr LC50 Gammarus lacustris: 0.6 mg/L

Benzene, ethyl-

96 Hr LC50 Oncorhynchus mykiss: 11.0 - 18.0 mg/L [static];

96 Hr LC50 Oncorhynchus mykiss: 4.2 mg/L [semi-static];

96 Hr LC50 Pimephales promelas: 7.55 - 11 mg/L [flow-through];

96 Hr LC50 Lepomis macrochirus: 32 mg/L [static];

96 Hr LC50 Pimephales promelas: 9.1 - 15.6 mg/L [static];

96 Hr LC50 Poecilia reticulata: 9.6 mg/L [static]

48 Hr EC50 Daphnia magna: 1.8 - 2.4 mg/L



DEFENDER PRIME EPOXY PRIMER PART B

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72 Hr EC50 Pseudokirchneriella subcapitata: 4.6 mg/L;

96 Hr EC50 Pseudokirchneriella subcapitata: >438 mg/L;

72 Hr EC50 Pseudokirchneriella subcapitata: 2.6 - 11.3 mg/L [static];

96 Hr EC50 Pseudokirchneriella subcapitata: 1.7 - 7.6 mg/L [static]

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

Minimize the generation of waste whenever possible. Dispose by license waste disposal contractor. Comply with local. regional, and fedral disposal regulations and legislation.

SECTION 14. Transport Information

AGENCY	PROPER SHIPPING NAME	UN NUMBER	PACKING GROUP	HAZARD CLASS
DOT	PAINT	1263	II	3
IOTA	PAINT	1263	II	3

SECTION 15. REGULATORY INFORMATION

All components are in compliance with TSCA inventory listing or are exempt.

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:

- 108-10-1 Hexone 10 %
- 100-41-4 Benzene, ethyl- 1 %

HAZARDOUS AIR POLLUTANTS

- 108-10-1 Hexone
- 1330-20-7 Xylol
- 100-41-4 Benzene, ethyl-

HAZARDOUS SUBSTANCE/CHEMICALS/POLLUTANTS

None







DEFENDER PRIME EPOXY PRIMER PART B

SAFETY DATA SHEET

CHEMICAL LIST FOR SARA 313

- 108-10-1 Hexone
- 95-63-6 Benzene, 1,2,4-trimethyl
- 1330-20-7 Xylol
- 100-41-4 Benzene, ethyl

CHEMICAL LIST FOR SARA 311/312

• 1330-20-7 Xylol

CHEMICAL LIST FOR SARA 311

• 1330-20-7 Xylol

MASSACHUSETTS RIGHT TO KNOW

- 14807-96-6 Talc 22 %
- 616-38-6 Dimethyl carbonate 15 %
- 108-10-1 Hexone 10 %
- 1332-58-7 Kaolin 7 %
- 95-63-6 Benzene, 1,2,4-trimethyl- 4 %
- 1330-20-7 Xylol 3 %
- 100-41-4 Benzene, ethyl- 1 %

NEW JERSEY RIGHT TO KNOW

- 14807-96-6 Talc 22 %
- 616-38-6 Dimethyl carbonate 15 %
- 108-10-1 Hexone 10 %
- 1332-58-7 Kaolin 7 %
- 95-63-6 Benzene, 1,2,4-trimethyl- 4 %
- 1330-20-7 Xylol 3 %
- 100-41-4 Benzene, ethyl- 1 %

PENNSYLVANIA RIGHT TO KNOW

- 14807-96-6 Talc 22 %
- 616-38-6 Dimethyl carbonate 15 %
- 108-10-1 Hexone 10 %
- 1332-58-7 Kaolin 7 %
- 95-63-6 Benzene, 1,2,4-trimethyl- 4 %
- 1330-20-7 Xylol 3 %100-41-4 Benzene, ethyl- 1 %



DEFENDER PRIME EPOXY PRIMER PART B

SAFETY DATA SHEET

COUNTRY

REGULATION

ALL COMPONENTS LISTED

EU RISK PHRASES - NONE SAFETY PHRASE - NONE

SECTION 16. Other Information

HMIS and NAFTA rating are on a 0 to 4 rating scale with 0 minimal hazard, and 4 represent significant danger or hazard.



The information provided herein was believed by UMI Coatings to be accurate and reliable, but the user is responsible to comply with all laws and procedures whether included or not. UMI Coatings makes no warranty expressed of implied concerning the accuracy of the infomation except the product will comply with UMI Coatings specifications.