WS107 POLYASPARTIC

PART A - RESIN

1. IDENTIFICATION

1.1 Product identifier

Trade name	**WS107 PolyAspartic Coating Part A Resin**
Chemical name	**Aspartic Acid Ester**

1.2 Recommended use of the product and restrictions on use

Recommended use	Industrial Use, Raw material for Coatings for concrete floors
Non- recommended use(s)	None known

1.3 Details of the supplier on the safety data sheet

Company	Weatherskin Corporation. Unit B 1120 44th Avenue SE Calgary, Alberta. Canada T2G 4W6
Telephone	403 656 9244
Email	team@weatherskin.com
Website	www.weatherskin.com

1.4 Emergency telephone number

Emergency In case of emergency call CANUTEC	613-996-6666

2. HAZARD IDENTIFICATION

2.1 Classification of the mixture

2.1.1 Health Hazards	
Skin irritation	Category 1C
Eye Irritation	Category 2A
Skin sensitizer	Category 1A
Acute Aquatic Toxicity	Category 3

2.2 Label Elements

Symbol

Signal word

Danger
May cause an allergic skin reaction
May cause respiratory irritation
Harmful to the aquatic life with long lasting effects.
Causes severe skin burns and eye damage.
Causes eye irritation

Precautionary Statements

Avoid breathing dusts, mist, vapors, spray, gas.
Use only in a well-ventilated area.
Do not eat, drink or smoke when using this product
Wash with plenty of water and soap thoroughly after handling
Contaminated clothes are not allowed on the work area.
Use gloves, avoid all contact.
Keep away from heat / sparks / open flames / hot surfaces.
Keep container tightly closed

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Mixtures

Polyaspartic coating Part A

HAZARDOUS INGREDIENTS	C.A.S.#	WEIGHT %
Aspartic Ester	136210-30-5	70 - 90
Isophoronediamine- di-imine	54914-37-3	5 - 20

4. FIRST AID MEASURES

EYE CONTACT	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice / attention
SKIN CONTACT	If on skin or hair, take off immediately all contaminated clothing and shoes. Rinse skin, washing thoroughly with soap and water. Wash contaminated clothing before use. If skin irritation occurs get medical attention. Wash clothes before reuse.
INHALATION	IF INHALED: Remove person to fresh air. Keep at rest. Call a POISON CENTER or doctor if you feel unwell.
INGESTION	IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician. DO NOT induce vomiting.

Notes to Physician.

Treatment is essentially symptomatic. FIRE-FIGHTING

5. MEASURES

5.1 Extinguishing media

Suitable extinguishing media	Dry powder, Carbon dioxide (CO2), Foam. Water Spray Unsuitable
Unsuitable extinguishing media	High volume water jet.

5.2 Hazards

Toxic and irritating gases / fumes may be given off during burning or thermal decomposition.

5.3 Hazardous decomposition / combustion products

Carbon dioxide (CO2), Carbon monoxide (CO), oxides of nitrogen (NOx), Amines, other aliphatic fragments which have not been determined. At high temperatures, ammonia gas may be liberated at high temperatures.

5.4 Fire-fighting instructions

Cool containers with flooding quantities of water until well after fire is out to minimize the risk of rupture. Evacuate area of unprotected personnel. Use full protective apparel and self-contained breathing apparatus pressure-demand, MSHA/NIOSH (or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures.

Avoid breathing vapors or mists. Remove all sources of ignition. Use personal protective equipment as required. Avoid contact with skin, eyes, or clothing. Keep people away from and upwind of spill / leak. Evacuate personnel to safe areas, depending on the size of the spill, site conditions, and ambient temperature. Notify managements. Call CANUTEC: 613-996-6666 for assistance and advice.

6.2 Environmental precautions

Do not allow into any sewer, on the ground or into any body of water. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations. Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages cannot be contained

6.3 Methods and materials for containment and cleaning up

Contain spill with dike if necessary. Absorb in suitable inert material. Sweep or scoop up using non-sparking tools. Place into a suitable container for disposal. After removal, flush spill area with soap and water to remove trace residue.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid all personal contact. Remove all sources of ignition. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Do not breathe dust / fume / gas / mist / vapor / spray. Use only with adequate ventilation. Keep away from heat, sparks, flame and other sources of ignition.

7.2 Hygiene considerations.

Wash hands before breaks and after work. Remove soiled or soaked clothing immediately. Wash contaminated clothes before reuse. Do not eat, drink or smoke when handling this product. Remove contaminated clothing and protective equipment before entering eating areas. Avoid all contact.

7.3 Safe storage procedures

Keep away from heat. Keep containers tightly closed in a dry well-ventilated place. Empty containers retain product residue and can be hazardous. Keep / store only in original container. Storage Temperature: Minimum 5 °C, Maximum 30 °C. Storage period 6 months after receipt of material by customer. Store separate from food products.

7.4 Incompatible materials

Oxidizing agents, Acids, Isocyanates

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 EXPOSURE LIMITS

Hazardous Components (Chemical Name)	ACGIH TLV	OSHA PEL	NIOSH IDLH	Alberta
Aspartic Ester	Not Available	Not Available	Not Available	Not Available
Isophoronediamine- di-imine	Not Available	Not Available	Not Available	Not Available

8.2 EXPOSURE CONTROLS

Industrial Hygiene/Ventilation Measures

General dilution and local exhaust ventilation as necessary to control airborne vapors, aerosols (e.g., dusts, mists) and thermal decomposition products. Heating may result in generation of airborne vapors and/or aerosols.

Respiratory Protection

If vapors form, respiratory protection is recommended., The use of a positive pressure supplied air respirator is recommended if the airborne concentration is unknown or if spraying is performed in a confined space or area with limited ventilation., In spray applications, an organic vapor/particulate respirator or air supplied unit is necessary.

Hand Protection

Ensure gloves remain in good condition during use and replace if any deterioration is observed. Permeation resistant gloves., Viton gloves., 4H laminate gloves., Butyl rubber gloves., Nitrile rubber gloves.

Eye Protection

Chemical safety goggles or safety glasses with side-shields., Chemical safety goggles in combination with a full face shield if a splash hazard exists.

Skin Protection

Avoid all skin contact. Depending on the conditions of use, cover as much of the exposed skin area as possible with appropriate clothing to prevent skin contact., Where spray mist/vapor is anticipated, permeation resistant clothing is recommended.

Additional Protective Measures

Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Emergency showers and eye wash stations should be available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Physical State	Liquid.
Color	Colorless or light yellow.
Odor	Slight

Properties

Vapor Pressure	No information available
Vapor Density	No information available
Boiling Point	No information available
Melting Point	No information available
Flash Point	No information available
PH	No information available
Density	1.06 g/ cm3
Viscosity	No information available
VOC content	No information available
Evaporation rate	No information available
Solubility in water	Negligible

10. STABILITY AND REACTIVITY

Reactivity	No decomposition if stored and applied as directed.
Chemical Stability	Stable under normal conditions.
Incompatible Materials	Oxidizing agents, Acids, Isocyanates.
Hazardous Polymerization	Will not occur under normal conditions.
Conditions to avoid	Moisture, high temperatures, heat, flames, sparks.
Hazardous decomposition products	Carbon dioxide (CO2), Carbon monoxide (CO). Oxides of nitrogen (NOx), Amines, other aliphatic fragments (by fire and high heat) which have not been determined. Ammonia gas may be liberated at high temperatures.

11. TOXICOLOGICAL INFORMATION

11.1 Toxicity

Ingredient Name	Oral LD50	Dermal LD50	Inhalation LC50
Aspartic Ester	Acute toxicity estimate:>5000 mg/kg: >2000 mg/kg (rat) based on a similar product	LD50:> 2000 mg/kg (rat) Directive 67/548/ EEC, Annex V,B.3.)	LC50:>4224 mg/l, 4 hours dust/mist (rat, male/female) OECD Test Guideline 403
Isophoronediamine-di-imine	Oral rat: 4150 mg/kg	Dermal rat: > 5000 mg/kg	Not Available

11.2 Skin Corrosion and / or irritation

Rabbit, OECD Test Guideline 404, Exposure time : 4h, slight irritant

11.3 Eye Damage or irritation

Rabbit, OECD Test Guideline 405, slight irritant

11.4 Respiratory and skin sensitization.

Rat, Effect on the respiratory tract	Slight irritant
Skin sensitization (Guinea pig, Magnusson / Kligmann (Maximization Test))	Sensitizer

11.5 Repeated Dose Toxicity

Subacute oral toxicity	NOAEL:>1000 mg/kg (rat, Male / Female). Toxicological studies of a comparable product.

11.6 Mutagenicity

Ingredient Name	Genetic Toxicity in Vitro
Aspartic Ester	Salmonella/microsome test (Ames test): No indication of mutagenic effects. Chromosome aberration test in vitro: negative Genetic Toxicity in Vivo: Micronucleous tes: Negative (Mouse)
Isophoronediamine- di-imine	Not a mutagen

11.7 Carcinogenicity

Ingredient Name	
Aspartic Ester	No carcinogenic substances as defined by IARC, NTP and / or OSHA
Isophoronediamine- di-imine	Contains no carcinogenic substances as defined by IARC, NTP or OSHA

11.8 Reproductive Toxicity

Not Available

11.9 Specific Target Organs Effect

Not information available

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Ingredient Name	Toxicity to Fish	Toxicity to Aquatic Invertebrates	Toxicity to Aquatic Plants	Toxicity to Microorganisms
Aspartic Ester	LC50: 66 mg/l (Danio rerio (zebra fish), Exposure time: 96 hours	EC50:88.6 mg/l (Daphnia magna (water flea)) Exposure time: 48 hours	IC50: 113 mg/l (scenedesmus subspicatus) Exposure time: 72 hours	EC50: 3110 mg/l (activated sludge) 3 hours
Isophoronediamine-di-imine	LC50:> 100 mg/l (Danio rerio (zebra fish) Exposure time: 96 hours LC50 : 26.1 mg/L (Brachydaniorerio) Exposure time: 96 hours	EC50: 14.7 mg/l (Daphnia magna (water flea)) Exposure time: 48 hours NOEC: 3 mg/L (Daphnia magna) 21 d	ErC50:> 100 mg/L (Desmodesmus subspicatus). NOEC: 7.6 mg/L (Desmodesmus subspicatus).	EC50: 302.4 mg/L (Activated sludge) 3 hours

12.2 Persistence, degradability and Bioaccumulation

Ingredient Name	Biodegradability	Bioaccumulation Potential	Mobility in Soil
Aspartic Ester	13%, Exposure time: 28 d. Not readily biodegradable Ecotoxicological report on a comparable product. 0%, Exposure time: 28 d. Not inherently degradable.	BCF: 1.872 The substance hydrolyzes rapidly in water. An accumulation in aquatic organisms is not to be expected.	No information available
Isophoronediamine-di-imine	Not readily biodegradable (34%, 23 d)	Not Available	Not Available

12.3 Other Adverse effects

No information available.

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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. Do not contaminate pond, waterways or ditches with chemical or used container. The product should not be allowed to enter drains, water courses or the soil.

Empty Container Precautions

Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse empty container without proper cleaning. Empty containers retain product residue (dust, liquid, vapor, and / or gases) and can be dangerous. Do not heat or cut container with electric or gas torch.

14. TRANSPORTATION INFORMATION

14.1 Identification, UN number	UN 2735
14.2 Shipping Name	Amines Liquid, Corrosive , N.O.S
14.3 Hazard Class	8
14.4 Packing Group	III

15. OTHER INFORMATION

Preparation Date	June 2nd, 2017
MSDS prepared by	Weatherskin Corporation. 403 656.9244

The information is furnished without warranty, representation, inducement, license of any kind, except that it is accurate to the best of Weatherskin Corporation's knowledge or obtained from sources believed by to be accurate and Weatherskin Corporation does not assume any legal responsibility for use or reliance on same. Customers are encouraged to do their own tests.

WS107 POLYASPARTIC

PART B - HARDENER

1. IDENTIFICATION

1.1 Product identifier

Trade name	**WS107 Polyaspartic Coating Part B Hardener**
Chemical name	**Aliphatic Polyisocyanate**

1.2 Recommended use of the product and restrictions on use

Recommended use	Industrial Use, Coating for concrete floors
Non- recommended use(s)	None known

1.3 Details of the supplier on the safety data sheet

Company	Weatherskin Corporation. Unit B 1120 44th Avenue SE Calgary, Alberta. Canada T2G 4W6
Telephone	403 656 9244
Email	team@weatherskin.com
Website	www.weatherskin.com

1.4 Emergency telephone number

Emergency In case of emergency call CANUTEC	613-996-6666

2. HAZARD IDENTIFICATION

2.1 Classification of the mixture

2.1.1 Health Hazards	
Skin irritation	Category 2
Eye Irritation	Category 2A
Acute Toxicity	Category 4
Respiratory Sensitizer	Category 1
Skin Sensitizer	Category 1

2.2 Label Elements

Symbol

Signal word	Warning May cause an allergic skin reaction May cause respiratory irritation
Precautionary Statements	Avoid breathing dusts, mist, vapors, spray, gas. Use only in a well-ventilated area. Do not eat, drink or smoke when using this product Wash with plenty of water and soap thoroughly after handling Contaminated clothes are not allowed on the work area. Use gloves, avoid all contact. Keep away from heat / sparks / open flames / hot surfaces. Keep container tightly closed

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Mixtures

WSM8 MINING AND SAFETY

HAZARDOUS INGREDIENTS	C.A.S.#	WEIGHT %
Polyisocyanate Based on Hexamethylene Diisocyanate (HDI)	Trade secret	85 - 95
Hexamethylene-1,6 Diisocyanate	822-06-0	0.1 - .4
Propylene carbonate	108-32-7	5 - 15

4. FIRST AID MEASURES

EYE CONTACT	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice / attention
SKIN CONTACT	If on skin or hair, take off immediately all contaminated clothing and shoes. Rinse skin, washing thoroughly with soap and water. Wash contaminated clothing before use. If skin irritation occurs get medical attention. Wash clothes before reuse.
INHALATION	IF INHALED: Remove person to fresh air. Keep at rest. Call a POISON CENTER or doctor if you feel unwell.
INGESTION	IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician. DO NOT induce vomiting.

Notes to Physician.

Treatment is essentially symptomatic. FIRE-FIGHTING

5. MEASURES

5.1 Extinguishing media

Suitable extinguishing media	Dry powder, Carbon dioxide (CO2), Foam. Do not use water as an extinguishing media. Water can be used for large fires and to cool down structures
Unsuitable extinguishing media	Water.

5.2 Hazards

Under fire conditions toxic, corrosive fumes are emitted. It reacts with water releasing large amounts of carbon dioxide which may cause pressure build-up in confined spaces. Stay upwind. Use water spray to cool fire-exposed containers and structures. Do not use water directly on the material.

5.3 Hazardous decomposition / combustion products

Carbon dioxide (CO2), Carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke., Hydrogen cyanide, Isocyanate, Isocyanic Acid, other undetermined products.

5.4 Fire-fighting instructions

Do not inhale combustion gases. Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Cool containers with flooding quantities of water until well after fire is out. Do not allow run-off from fire-fighting to enter drains or water courses.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures.

Avoid breathing vapors or mists. Remove all sources of ignition. Use personal protective equipment as required. Avoid contact with skin, eyes, or clothing. Keep people away from and upwind of spill / leak. Evacuate personnel to safe areas, depending on the size of the spill, site conditions, and ambient temperature. Notify managements. Call CANUTEC: 613-996-6666 for assistance and advice.

6.2 Environmental precautions

Do not allow into any sewer, on the ground or into any body of water. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations. Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages cannot be contained

6.3 Methods and materials for containment and cleaning up

Wash hands before breaks and after work. Remove soiled or soaked clothing immediately. Wash contaminated clothes before reuse. Do not eat, drink or smoke when handling this product. Remove contaminated clothing and protective equipment before entering eating areas.

Prevent further leakages or spillage if safe to do so. Contain the released material by damming, diking, retaining, or diverting into an appropriate containment area. Absorb or pump off as much of the spilled material as possible. When using absorbent, completely cover the spill area with suitable absorbent material (e.g. vermiculite, kitty litter, Oil-Dri, etc…). Allow the absorbent material to absorb the spilled liquid. Shovel the absorbent material into an approved metal container (i.e.,55-gallon salvage drum). Do not fill the container more than 2/3 full to allow for expansion, and do not tighten the lid on the container. Repeat application of absorbent material until all liquid has been removed from the surface.

Decontaminate the spill surface area using a neutralization solution. These products or product mixtures have been shown to be effective neutralization solutions for decontaminating surfaces, tools, or equipment that have been in contact with an isocyanate includes:

Spartan Chemical Company
Spartan ® 'ShineLine Emulsifier Plus Plus
Spartan ® SC-200 Heavy Duty Cleaner

Colorimetric Laboratories, Inc.
Isocyanate Decontamination Solution Mix equal amounts of the following:
Mineral spirits (80%), VM&P Naphtha (15%), and household detergent (5%) and
A 50-50 mixture of monoethanolamine and water

In a separate container, blend the two solutions in a 1:1 ratio by volume. Immediately prior to applying this blended neutralization solution onto the contaminated surface area, mix or agitate the container to help ensure uniform mixing of the ingredients.

If the above products are not available, the following products can be obtained through retail outlets:
ZEP® Commercial Heavy-Duty Floor Stripper
Greased Lightning ® Super Strength Cleaner and Degreaser
EASY OFF ® Grill and Oven Cleaner or EASY OFF ® Fume Free Oven Cleaner
A mixture of 50% Simple Green® Pro HD Heavy-Duty Cleaner and 50% household ammonia
A mixture of 90% Fantastic® Heavy Duty All Purpose Cleaner and 10% household ammonia

Scrub the surface with a broom or brush to help the decontamination solution to penetrate into porous surfaces. Wait at least 15 minutes after first application of the neutralization solution. Cover the area with absorbent material and shovel into appropriate metal container. Check for residual contamination using Swype® test kits, available from Colorimetric Laboratories, Inc. If the Swype® test pad demonstrate that isocyanate remains on the surface (red color on pad), repeat applications of neutralization solution, with scrubbing, followed by absorbent until the surface is decontaminated (no color change on Swype® pad) Apply lid loosely to metal waste container (do not tighten the lid because carbon dioxide gas and heat can be generated from the neutralization process). With the lid still loosely in place, move the container to an isolated, well-ventilated area to allow release of carbon dioxide. After 72 hours, seal the container and properly dispose of the waste material and any contaminated equipment (i.e., broom or brush) in accordance with existing federal, state and local regulations.

Always wear proper PPE when cleaning up an isocyanate spill and using a neutralization solution. It may take two or more applications of the neutralization solution to decontaminate the surface. Check for residual surface contamination using a surface wipe method such as the Swype ® pad.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid all personal contact. Remove all sources of ignition. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Do not breathe dust / fume / gas / mist / vapor / spray. Use only with adequate ventilation. Keep away from heat, sparks, flame and other sources of ignition.

7.2 Hygiene considerations.

Wash hands before breaks and after work. Remove soiled or soaked clothing immediately. Wash contaminated clothes before reuse. Do not eat, drink or smoke when handling this product. Remove contaminated clothing and protective equipment before entering eating areas. Avoid all contact.

7.3 Safe storage procedures

Keep away from heat. Keep containers tightly closed in a dry well-ventilated place. Empty containers retain product residue and can be hazardous. Keep / store only in original container. Storage Temperature: Minimum 5 °C, Maximum 30 °C. Storage period 6 months after receipt of material by customer.

7.4 Incompatible materials

Water, Amines, Strong Bases, Alcohols, Copper alloys

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 EXPOSURE LIMITS

Hazardous Components (Chemical Name)	ACGIH TLV	OSHA PEL	NIOSH IDLH	Alberta
Polyisocyanate Based on Hexamethylene Diisocyanate (HDI)	Covestro Exposure Limit: TWA: 0.5 mg/m3	Not Available	Not Available	
Hexamethylene-1,6 Diisocyanate	Covestro Exposure Limit: TWA: 0.005 ppm	Not Available	Not Available	
Propylene carbonate	Substance with no occupational exposure limit values.			8 hour occupational exposure limit 0.005 ppm 0.03 mg/m3

8.2 EXPOSURE CONTROLS ENGINEERING CONTROLS

Ensure adequate ventilation, especially in confined areas. Provide local exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

8.3 PERSONAL PROTECTIVE EQUIPMENT

Respiratory Equipment:

Non-Spray Operations. A. During non-spray operations such as mixing, batch-making, brush or roller application, etc., at elevated temperatures (for example, heating of material or application to a hot substrate), it is possible to be exposed to airborne isocyanate vapors. Therefore, when the coatings system will be applied in a non-spray manner, a supplied-air (either positive pressure or continuous flow-type) respirator is mandatory when ONE OR MORE of the following conditions exists: - the airborne isocyanate concentrations are not known; or - the airborne isocyanate monomer concentrations exceed 0.05 ppm averaged over eight (8) hours (10 times the 8 hour TWA exposure limit); or - the airborne polyisocyanate (polymeric, oligomeric) concentrations exceed 5 mg/m3 averaged over 8 hours or 10 mg/m3 averaged over 15 minutes (10 times the 8 hour TWA or the 15 minute STEL exposure limits); or - operations are performed in a confined space (See OSHA Confined Space Standard, 29 CFR 1910.146). A properly fitted air-purifying (combination organic vapor and particulate) respirator, proven by test to be effective in isocyanate-containing paint environments, and used in accordance with all recommendations made by the manufacturer, can be used when ALL of the following conditions are met: -the airborne concentrations of the isocyanate monomer are below 0.05 ppm averaged over eight (8) hours (10 times the 8 hour TWA exposure limit); and - the airborne polyisocyanate (polymeric, oligomeric) concentrations are known to be below 5 mg/m3 averaged over eight (8) hours or 10 mg/m3 averaged over 15 minutes (10 times the 8 hour TWA or the 15 minute STEL exposure limits) and - a NIOSH-certified End of Service Life Indicator or a change schedule based upon objective information or data is used to ensure that cartridges are replaced before the end of their service life. In addition, prefilters should be changed whenever breathing resistance increases due to particulate buildup.

Eye Protection	Use tightly fitting chemical splash goggles. Wear face shield if splashing hazard exists.
Hand Protection	Use impermeable gloves. Neoprene or butyl-rubber gloves. Gloves should be replaced regularly and if there is any sign of damage to the glove material.
Body Protection	Use impervious clothing and chemical resistant boots. Consider using resistant coveralls and aprons, if extensive exposure is possible.
Other Protective Equipment	Ensure that eyewash stations and safety showers are close to the workstation location.

General Hygiene Consideration	Do not breathe mist or vapor. Avoid all contact. Do not eat, drink, or smoke when using this product. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Do not take contaminated clothes home.
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

Appearance:

Physical State	Liquid.
Color	Colorless or light yellow.
Odor	No Data

Properties

Vapor Pressure	No information available
Vapor Density	No information available
Boiling Point	No information available
Melting Point	No information available
Flash Point	No information available
PH	No information available
Density	1.1 g/ cm3
Viscosity	No information available
VOC content	No information available
Evaporation rate	No information available
Solubility in water	Negligible

10. STABILITY AND REACTIVITY

Reactivity	No decomposition if stored and applied as directed.

Chemical Stability	Stable under normal conditions
Incompatible Materials	Water, Amines, Strong bases, Alcohols, Copper alloys.
Hazardous Polymerization	Will not occur under normal conditions. Contact with moisture, other materials that react with isocyanates or temperatures above 177 °C, may cause polymerization.
Conditions to avoid	High temperatures, heat, flames, sparks.
Hazardous decomposition products (by fire and high heat)	Carbon dioxide (CO2), Carbon monoxide (CO). Oxides of nitrogen (NOx), dense black smoke. Hydrogen cyanide, Isocyanate, Isocyanic Acid, Other undetermined compounds.

11. TOXICOLOGICAL INFORMATION

11.1 Toxicity

Ingredient Name	Oral LD50	Dermal LD50	Inhalation LC50
Polyisocyanate Based on Hexamethylene Diisocyanate (HDI)	> 2500 mg/kg (Rat, female)	> 2000 mg/kg (Rabbit, male / female) > 2000 mg/kg (Rat, male / female)	> 0.39 – 0.543 mg/l, 4 hours, dust / mist (rat, male / female)
Hexamethylene-1,6 Diisocyanate	746 mg/kg (Rat, male) OECD Test Guideline 401 959 mg/kg (Rat, male) OECD Test Guideline 401	LD50: > 7,000 mg/kg (rat, male/female) (OECD Test Guideline 402)	LC50: 0.124 mg/l, 4 h, vapour (rat, male/female) (OECD Test Guideline 403)
Propylene carbonate	= 2200 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	

11.2 Skin Corrosion and / or irritation

Rabbit, OECD Test Guideline 404, Exposure time : 4h, slight irritant

11.3 Eye Damage or irritation

Rabbit, OECD Test Guideline 405, slight irritant

11.3 Eye Damage or irritation

Skin sensitization (local lymph node assay (LLNA))	Positive (Guinea pig, OECD Test Guideline 406)
Respiratory sensitization	No pulmonary sensitization observed in animal tests. No pulmonary sensitization potential was observed in guinea pigs after either intradermal or inhalative induction with polyisocyanate based on hexamethylene diisocyanate.

11.5 Mutagenicity

Ingredient Name	Genetic Toxicity in Vitro
Polyisocyanate Based on Hexamethylene Diisocyanate (HDI)	Salmonella/microsome test (Ames test): No indication of mutagenic effects. (Metabolic Activation: with/without) Chromosome aberration test in vitro: negative (Chinese hamster V79 cell line, Metabolic Activation: with/without) Point mutation in mammalian cells (HPRT test): negative (Chinese hamster ovary (CHO) cells, Metabolic Activation: with/without)
Hexamethylene-1,6 Diisocyanate	Not Available
Propylene carbonate	Concentration: 5000 ug/plate Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Metabolic activation: negative Method: OECD Test Guideline 482

11.6 Carcinogenicity

Ingredient Name	
Polyisocyanate Based on Hexamethylene Diisocyanate (HDI)	rat, male/female, Inhalative, 2 yrs, 6 hours/day, 5 days/week Did not show carcinogenic effects in animal experiments.
Hexamethylene-1,6 Diisocyanate	Not Listed on IARC nor in ACGIH

Propylene carbonate	Species: Mouse, (male). Application Route: Dermal. Exposure time: 104 weeks Dose: 1500 – 2000 mg/kg. Frequency of Treatment: 2 daily. Method: OECD Test Guideline 451 Result: Negative Carcinogenicity Assessment: No data available No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH

11.7 Reproductive Toxicity

Ingredient Name	Toxicity to Reproduction / Fertility
Polyisocyanate Based on Hexamethylene Diisocyanate (HDI)	No Information available.
Hexamethylene-1,6 Diisocyanate	Combined Repeated Dose Toxicity Study with the Reproduction/ Developmental Toxicity Screening Test, Inhalative, 6 hours/day 7 days/week, (rat, male/female) NOAEL (F2): 0.3 ppm Fertility and developmental toxicity tests did not reveal any effect on reproduction.
Propylene carbonate	Species: Rat Application Route Oral Method: OECD Test Guideline 414 Effects on fetal development Species: Rat, male and female Application Route: Oral General Toxicity Maternal: No observed adverse effect level: 1000 mg/kg body weight Method: OECD Test Guideline 414 Result: No teratogenic effects Reproductive toxicity Assessment: No data available

11.8 Specific Target Organs Effect

Not information available.

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Ingredient Name	Toxicity to Fish	Toxicity to Aquatic Invertebrates	Toxicity to Aquatic Plants	Toxicity to Microorganisms
Polyisocyanate Based on Hexamethylene Diisocyanate (HDI)	LC50:>100 mg/l (Danio rerio (zebra fish), Exposure time: 96 hours	EC50:>100 mg/l (Daphnia magna (water flea)) Exposure time: 48 hours	ErC50>1000 mg/l (scenedesmus subspicatus) Exposure time: 72 hours	EC50: 3828 mg/l (activated sludge) 3 hours
Hexamethylene-1,6 Diisocyanate	LC0:> 82.8 mg/l (Danio rerio (zebra fish) Exposure time: 96 hours LC50 : 26.1 mg/L (Brachydaniorerio) Exposure time: 96 hours			
Propylene carbonate	LC50 (Cyprinus carpio (Carp)):> 1000 mg/l Exposure time: 96 hours Test Type: Semi-static test Method: Directive 67/548/EEC Remarks: No-observed-effect level	EC50:>1000 mg/L (Daphnia magna (water flea)) Exposure time: 48 hours Test Type: static test Test Substance: Fresh Water Method: OECD Test Guideline 202 Remarks: No-observed-effect level	Er50:>900 mg/L (Desmodesmus Subspicatus) Exposure time: 72 hours Test Type: static test Test substance: Fresh Water Method: OECD Test Guideline 201 EbC50: > 929 mg/l (Selenastrum capricornutum (green algae)) Exposure time: 72 h Test Type: static test Test substance: Fresh water Method: OECD Test Guideline 201	EC50 (Pseudomonas putida): 25,619 mg/l Exposure time: 16 h Test Type: static test Test substance: Fresh water Method: DIN 38 412 Part 8

12.2 Persistence, degradability and Bioaccumulation

Ingredient Name	Biodegradability	Bioaccumulation Potential	Mobility in Soil
Polyisocyanate Based on Hexamethylene Diisocyanate (HDI)	aerobic, 1 %, Exposure time: 28 d, i.e. not readily degradable aerobic, 0 %, Exposure time: 28 d, i.e. not readily degradable	3.2 BCF An accumulation in aquatic organisms is not to be expected. 367.7 BCF An accumulation in aquatic organisms is not to be expected. Studies of hydrolysis products.	No information available
Hexamethylene-1,6 Diisocyanate	Aerobic, 42% Exposure time: 28 d i.e. not readily degradable	Value calculated, 57.6 BCF An accumulation in aquatic organisms is not to be expected Value Calculated, 3.2 BCF An accumulation in aquatic organism is not to be expected. Studies of hydrolysis products	No Information available
Propylene carbonate	Concentration: 20 mg/l Result: Readily biodegradable Biodegradation: 83.5 % Exposure time: 29 d Method: OECD Test Guideline 301B	Remarks: Does not bioaccumulate Partition coefficient: n-octanol/water Product: log Pow:-0.5 (20 °C)	No Data Available

12.3 Other Adverse effects

No information available.

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. Do not contaminate pond, waterways or ditches with chemical or used container. The product should not be allowed to enter drains, water courses or the soil.

14. TRANSPORTATION INFORMATION

14.1 Identification, UN number	Not Regulated
14.2 Shipping Name	Not Regulated
14.3 Hazard Class	Not Regulated
14.4 Packing Group	Not Regulated

15. OTHER INFORMATION

Preparation Date	June 2nd, 2017
MSDS prepared by	Weatherskin Corporation. 403 656.9244

The information is furnished without warranty, representation, inducement, license of any kind, except that it is accurate to the best of Weatherskin Corporation's knowledge or obtained from sources believed by to be accurate and Weatherskin Corporation does not assume any legal responsibility for use or reliance on same. Customers are encouraged to do their own tests.

DATA SHEET

WS 107 POLYASPARTIC

WS 107 Polyaspartic is a clear, fast- setting, two component, 100% solids polyaspartic coating specializing in providing a fast turn-around time during application. It may be used as both a top and base coat. Its zero VOC system allows the product to have a balanced pot-life and cure schedule. WS 107 has been specially designed to have exceptional adhesion to concrete, strong resistance to chemicals and abrasions, all while providing flexibility.

USES

WS 107 seals and waterproofs interior or exterior concrete substrates, such as: residentials (basement and garages), offices, showrooms, stores and warehouses; all the while, protecting the substrate from moisture intrusion, solubilized salts, wearing and spillage that may cause it to accelerate degradation. When mixed with aggregates including: silica sand, coloured granules (mica) and plastic flakes, may be used to decorate or to create a durable, skid resistant surface. WS 107 is also great for displaying multicoloured quartz aggregates and to enhance and restore existing concrete ubstrates.

FEATURES

- **Zero VOC**
- **No odor**
- **Fast curing and reasonable working time**
- **Rapid return to service after application**
- **Easy to use**
- **Long term durability**
- **Excellent mechanical properties**
- **Low viscosity, promoting concrete adhesion**
- **Antimicrobial**
- **UV and chemical resistant**
- **Hot tire resistance similar to solvent-borne coatings**
- **Produces an easy to clean, smooth surface free of any imperfections**
- **Exceptional mechanical properties**

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Suggested System Components
WS 107 is designed to be used in the absence of primer on porous concrete structures. Basecoats are typically applied at a 6-10 mils film thickness. Inter-coats and topcoats for high build systems are applied at the same rate. Within the re-coat window, WS 107 may be applied over solvent based or solvent free primers from a different chemistry. This product may be thinned using Butyl acetate up to 10% by volume.

TECHNICAL DATA

Description	*Test Method*	*Results*
Gloss	ASTM D523	60°; 90+
Impact (in. lbs)	ASTM D2794	Direct: 150 Reverse: 150
Taber Abrasion 1000g load, 1000 cycles, CS-17 wheel	TM-2 Method #9	48.7 mg loss
MEK Double Rubs	ASTM D4541	Softened
Pendulum Hardness	ASTM D	170 sec
Adhesion to Concrete	ASTM D	380 psi
Tensile Strength	ASTM D	8100 psi
Elongation at Break	ASTM D	5.2%
Flexibility	ASTM D	100%

*40 mils coating sample bent at 0° without breaking or tearing.

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PRODUCT DATA

Type	*Appearance*	*Packaging*	*Density*
Part A (Resin)	Clear, colorless, liquid	3.98 kg/ USG 19.89 kg/5 USG	1.09 kg/L
Part B (Hardener)	Clear, colorless, liquid	4.13 kg/ USG 20.64 kg/5 USG	1.09 kg/L
Part A + Part B	Clear coat	2 USG kits 10 USG kits	Mix 1:1 ratio by volume

Limitations

- **Avoid applying in direct sunlight in times of increased heat. May result in air bubbling underneath surface, wrinkling, blistering and pinholes.**
- **Not intended for immersion or below grade applications where moisture may reach underside of coating.**
- **Polyaspartics also moisture cure. Avoid applying in times of high relative humidity (more than 85%) as it may reduce pot life and working times.**
- **Do not apply coating thicker than 12 mils film thickness to maintain a suitable cure time in correspondence to the dry to touch time.**
- **Do not freeze Part A or B.**
- **Apply over a completely dry substrate. Water reaction with Part B will result in foaming and whitening, diminishing overall appearance.**

Chemical Resistance

Coatings based on polyaspartic esters are not the same as polyurethanes based on isocyanate polyester chemistry. However, they have comparable chemical resistance to topcoats based on water reducible urethane or hybrid (acrylic-urethane). On Medium-Duty applications such as in residentials and commercial, polyaspartic coatings are a great choice due to its rapid curing, low VOC and durable properties.

Garage floor testing reveals common liquids such as gasoline, antifreeze and motor oil have no effect when in contact with coating for 12 hours. Alcohols and ammonia (present in common household cleaners) also have no effect after being in contact for 12 hours.

Substances as MEK or Sulfuric Acid (50%) will soften the coating after 2 hours.

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Mixing and Tinting

Clear application — WS 107 may be applied clear. Prepare by accurately measuring 1 part by volume of resin (A) and 1 part by volume of hardener (B) into a clean mixing container. Mix for 2-3 minutes and scrape sides and bottom of mixing container to ensure complete mixing.

Tinted application — WS 107 may also be tinted. Prepare by accurately measuring 1 part by volume of resin (A) with the colorant first into a clean mixing container, prior to mixing 1 part by volume of hardener (B) into a the tinted Part A/colorant mixture. Do not change order of addition as the mixture's pot life will consequently be reduced. Do not count the colorants into the volume ratio of the resin (A) and the hardener (B). When mixing tinted WS 107, use 0.5 quarts of colorant per 2 USG of Polyaspartic. With a white colorant use 1 quart per 2 USG of Polyaspartic.

Warranty Disclaimer

We guarantee our Products adhere to the specifications of Weatherskin Coatings. Weatherskin Coatings makes no warranty or guarantee, expressed or implied, including warranties of fitness for a particular purpose or merchantability, respecting its Products. Liability, if any, is limited to refund or purchase price or replacement of the Product. All consequential damages, labor and cost of labor are hereby excluded.

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