

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product Name: SpotShot Part 1 (Dark Brown)
Chemical Name: Polymeric MDI
Chemical Family: POLYMETHYLENE POLYPHENYLISOCYANATE
CAS Number: Mixture

Company Identification

ERSystems- Elastomeric Roofing Systems, Inc.
6900 Bleck Dr
Rockford, MN 55373 USA
1-800-403-7747 (For product information)
1-800-535-5053 Infotrac (For emergencies)

SPECIAL NOTES:

Part A of two part polyurethane system. Polymethylene polyphenylisocyanate.

2. COMPOSITION/INFORMATION ON INGREDIENTS

100.0% SpotShot Part 1 (Dark Brown)

CONTAINING:

HAZARDOUS AND/OR REGULATED COMPONENTS

| <u>Chemical Name</u> | <u>Amount</u> | <u>CAS Number</u> |
|-----------------------------------|---------------|-------------------|
| 4,4'-DIPHENYLMETHANE DIISOCYANATE | 38.0 % | 101-68-8 |

NON-HAZARDOUS COMPONENTS

| <u>Chemical Name</u> | <u>Amount</u> | <u>CAS Number</u> |
|----------------------|---------------|-------------------|
| POLYMERIC MDI | < 55.0 % | 9016-87-9 |
| MDI MIXED ISOMERS | < 10.0 % | 26447-40-5 |

(See Section 8 for exposure guidelines)

(See Section 15 for regulatory information)

HAZARDS DISCLOSURE



(section 2 continued)

This product contains hazardous materials as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

As defined under Sara 311 and 312, this product contains materials that are hazards.

3. HAZARDS IDENTIFICATION

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***** EMERGENCY OVERVIEW *****
*
*                               CAUTION                               *
*
* Contains Diphenylmethane Diisocyanate. Inhalation
* of MDI mists or vapors may cause respiratory
* irritation, breathlessness, chest discomfort and
* reduced pulmonary function. Overexposure well
* above the PEL may result in bronchitis, bronchial
* spasms and pulmonary edema. Long-term exposure to
* isocyanates has been reported to cause lung damage,
* including reduced lung function which may be
* permanent. Acute or chronic overexposure to
* isocyanates may cause sensitization in some
* individuals, resulting in allergic respiratory
* reactions including wheezing, shortness of breath,
* and difficulty breathing.
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HMIS Rating - Health: *2
 Flammability: 1
 Reactivity: 1

NFPA/HMIS Definitions: (0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

POTENTIAL HEALTH EFFECTS

EYE:

Contact may cause eye irritation. May result in corneal opacity (clouding of the eye surface).



(section 3 continued)

SKIN:

Causes skin burns, irritation, and possible allergic reaction. In those who have developed skin sensitization, these symptoms can develop as a result of contact with a very small amount of the liquid material.

INHALATION:

Inhalation of MDI vapors may cause irritation of the mucous membranes of the nose, throat or trachea, breathlessness, chest discomfort, difficult breathing and reduced pulmonary function.

INGESTION:

Harmful if swallowed. Can burn mouth, throat, and stomach. Gastrointestinal symptoms include nausea, vomiting and abdominal pain.

CHRONIC EFFECTS:

As a result of previous repeated overexposures or a single large dose, certain individuals will develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate at levels well below the PEL/TLV. These symptoms, which include chest tightness, wheezing, cough, shortness of breath, or asthmatic attack, could be immediate or delayed up to several hours after exposure. Chronic overexposure to isocyanates has also been reported to cause lung damage, including a decrease in lung function, which may be permanent. Sensitization may be either temporary or permanent. Prolonged contact can cause reddening, swelling, rash, scaling, or blistering. In those who have developed skin sensitization, these symptoms can develop as a result of contact with very small amounts of liquid material.

REPRODUCTIVE HAZARDS:

No birth defects or teratogenic effects were reported in a teratology study with rats exposed to 1, 4 and 12mg/m³ polymeric MDI for 6 hr/day on days 6-15 of gestation. Embryotoxicity and fetotoxicity was reported at the top dose in the presence of maternal toxicity.

CARCINOGENICITY INFORMATION:

Listed by IARC and NTP as a carcinogen.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Individuals who are sensitized to isocyanates and those with preexisting lung disease or conditions, including non-specific bronchial hyperreactivity or asthma, must avoid all exposure to isocyanates.



4. FIRST AID MEASURES

EYE CONTACT FIRST AID:

After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get immediate medical attention.

SKIN CONTACT FIRST AID:

Remove contaminated clothing and shoes. Wash affected area immediately with large amounts of soap and water. Get medical attention immediately.

INHALATION FIRST AID:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get immediate medical attention.

INGESTION FIRST AID:

If swallowed, immediately give 2 glasses of water. Do not induce vomiting. Contact a physician. Never give anything by mouth to an unconscious person. Get immediate medical attention.

NOTES TO PHYSICIAN:

There is no antidote to counteract the effects of MDI. Care should be supportive and treatment should be based on the judgment of the physician in response to the action of the patient.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

COC Flash Point: 220 C (428.0 F)
Autoignition Temperature: N/A

FLAMMABLE LIMITS IN AIR

LEL: N/A
UEL: N/A

FLAMMABLE PROPERTIES:

Full emergency equipment with self contained breathing apparatus and full protective clothing should be worn. At temperatures greater than 400 F material may polymerize causing pressure build up in closed containers. Explosive rupture is possible. Use cold water to cool containers exposed to fire.

EXTINGUISHING MEDIA:

Water, carbon dioxide, foam or dry powder.



(section 5 continued)

FIRE & EXPLOSION HAZARDS:

Material will burn in a fire.

FIRE FIGHTING INSTRUCTIONS:

As in any fire, wear self-contained breathing apparatus pressure-demand MSHA/NIOSH (approved or equivalent) and full protective gear.

MISCELLANEOUS:

Reacts with water to form carbon dioxide gas, which may create excessive pressure in containers. Reacts exothermically with polyol and alcohols. Reacts exothermically and possibly violently with acids, amines and alkaline solutions.

6. ACCIDENTAL RELEASE MEASURES

SAFEGUARDS (PERSONNEL):

Evacuate non-emergency personnel to a safe area. Avoid breathing vapor. Ventilate spill area. Wear safety goggles. Wear appropriate personal protective equipment.

INITIAL CONTAINMENT:

Contain spilled material. Absorb spills with inert material. Place in closed containers but do not seal.

LARGE SPILLS PROCEDURE:

Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Place in closed containers but do not seal. Neutralize spill with mixture of 90% water, 3-8% ammonia and 2-7% detergent. Add at a 10 to 1 ratio and let stand for 48 hrs allowing CO₂ to escape.

MISCELLANEOUS:

Do not discharge into drains/surface waters/groundwater.

7. HANDLING AND STORAGE

RECOMMENDED STORAGE TEMPERATURE

Minimum: 15.6 C (60.1 F)
Maximum: 26.7 C (80.1 F)

SHELF LIFE: (in original, sealed containers)

18 months @ 26.7 C



(section 7 continued)

HANDLING (PERSONNEL):

Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Wash hands thoroughly after handling. Do not reuse this container.

HANDLING (PHYSICAL ASPECTS):

Provide appropriate ventilation. Close container after each use. Keep container closed to avoid contamination. Keep out of reach of children.

STORAGE PRECAUTIONS:

Avoid extreme temperatures. Keep container closed when not in use. Store in a cool dry place.

SPECIAL SENSITIVITY:

All handling equipment should be electrically grounded.

MISCELLANEOUS:

Protect from moisture.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

EYE / FACE PROTECTION REQUIREMENTS:

Wear safety glasses. A respiratory protection program that meets OSHA's 29 CFR 1910-134 and ANSI Z88-2 requirements must be followed whenever workplace conditions warrant a respirator's use.

SKIN PROTECTION REQUIREMENTS:

Selection of specific items such as gloves, boots, apron or full-body suit will depend on operation.

RESPIRATORY PROTECTION REQUIREMENTS:

When there is potential for airborne exposures in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection.

EXPOSURE GUIDELINES:

No Information Available.



9. PHYSICAL AND CHEMICAL PROPERTIES

FORM: Liquid
COLOR: Dark Brown
ODOR: Aromatic
BOILING POINT: 200 C @ 5 mm Hg
VAPOR PRESSURE: 0.00001 mm Hg @ 20 C
SOLUBILITY IN WATER: Reacts with water
SPECIFIC GRAVITY: 1.22 (Water = 1)
BULK DENSITY: 10.16 lb/USg
MELTING/FREEZING POINT ...: 3 C
VISCOSITY: 200 cps

10. STABILITY AND REACTIVITY

STABILITY:

Stable.

POLYMERIZATION:

May occur.

INCOMPATIBILITY WITH OTHER MATERIALS:

Reacts with water, with formation of carbon dioxide. Risk of bursting. Reacts with alcohols, acids, alkalis, amines. Risk of exothermic reaction. Risk of violent reaction. Contact with certain rubbers and plastics can cause brittleness of the substance with subsequent loss in strength.

DECOMPOSITION:

Hazardous decomposition products: carbon monoxide, hydrogen cyanide, nitrogen oxides, aromatic isocyanates, gases/vapors.

CONDITIONS TO AVOID:

Avoid moisture.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL EFFECTS:

LD50/rat: > 10,000 mg/kg. Practically nontoxic.

ACUTE INHALATION EFFECTS:

LD50/rat: > 2.240 mg/l / 1h

Moderately toxic.



12. ECOLOGICAL INFORMATION

No information available.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:

Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

CONTAINER DISPOSAL:

Steel drums must be emptied and can be sent to a licensed drum reconditioner for reuse, a scrap metal dealer, or an approved landfill. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. TRANSPORTATION INFORMATION

PRODUCT LABEL ...: SpotShot Part 1 (Dark Brown)

15. REGULATORY INFORMATION

Canadian Disclosure List

4,4'-DIPHENYLMETHANE DIISOCYANATE (101-68-8)

SARA Title III - Section 313

4,4'-DIPHENYLMETHANE DIISOCYANATE (101-68-8) --

Polymeric MDI (9016-87-9) --

MDI MIXED ISOMERS (26447-40-5) --

Title V

4,4'-DIPHENYLMETHANE DIISOCYANATE (101-68-8)

SC Toxic Air Pollutants List

4,4'-DIPHENYLMETHANE DIISOCYANATE (101-68-8)



16. OTHER INFORMATION

PREPARED BY: Dylan Lueth
APPROVED BY: Laura Vollenweider
TITLE: Chemist
APPROVAL DATE: February 23, 2007
SUPERCEDES DATE ...: January 25, 2007
MSDS NUMBER: foam00
RTN NUMBER: 00000116 (Official Copy)

ADDITIONAL INFORMATION:

The data in this Material Safety Data Sheet relates only to the specific material designated herein.

To the best of our knowledge, the information contained in this MSDS is accurate. It is intended to assist the user in his evaluation of the product's hazards, and safety precautions to be taken in its use. The data in this MSDS relate only to the specific material designated herein. We do not assume liability for the use of, or reliance on this information, nor do we guarantee its accuracy or completeness.

END OF MSDS



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product Name: SpotShot Part 2 (Red)
Product Number: cartridges
Chemical Name: Polyurethane System Resin
Component
Chemical Family: NA
CAS Number: Blend

Company Identification

ERSystems- Elastomeric Roofing Systems, Inc.
6900 Bleck Dr
Rockford, MN 55373 USA
1-800-403-7747 (For product information)
1-800-535-5053 Infotrac (For emergencies)

SPECIAL NOTES:

Polyurethane foam system resin component. Part B (Part 2) of a two part system.

2. COMPOSITION/INFORMATION ON INGREDIENTS

100.0% SpotShot Part 2 (Red)

CONTAINING:

HAZARDOUS AND/OR REGULATED COMPONENTS

| <u>Chemical Name</u> | <u>Amount</u> | <u>CAS Number</u> |
|----------------------|---------------|-------------------|
| ANILINE | < 0.1 % | 62-53-3 |
| ETHYLENE OXIDE | < 0.1 % | 75-21-8 |

NON-HAZARDOUS COMPONENTS

| <u>Chemical Name</u> | <u>Amount</u> | <u>CAS Number</u> |
|----------------------|---------------|-------------------|
| DIETHYLENE GLYCOL | < 10.0 % | 111-46-6 |
| DIPROPYLENE GLYCOL | < 10.0 % | 25265-71-8 |
| 1,4-DIOXANE | < 0.1 % | 123-91-1 |
| ACETALDEHYDE | < 0.1 % | 75-07-0 |



(section 2 continued)

(See Section 8 for exposure guidelines)

(See Section 15 for regulatory information)

3. HAZARDS IDENTIFICATION

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*****      EMERGENCY OVERVIEW      *****
*
*                               CAUTION                               *
*
*   May be harmful if swallowed.   *
*
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HMIS Rating -           Health: 1
                   Flammability: 0
                   Reactivity: 0
                   Personal Protection Index: S

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POTENTIAL HEALTH EFFECTS

EYE:
Contact may cause eye irritation and injury.

SKIN:
Not expected to be a skin irritant. A single, prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts.

INHALATION:
Avoid breathing vapors or mists. Prolonged or excessive inhalation may cause respiratory tract irritation.

INGESTION:
Harmful if swallowed.

4. FIRST AID MEASURES



(section 4 continued)

EYE CONTACT FIRST AID:

After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention if irritation develops or persists.

SKIN CONTACT FIRST AID:

Wash affected area. Get medical attention if irritation develops or persists.

INHALATION FIRST AID:

Remove to fresh air if effects occur.

INGESTION FIRST AID:

If swallowed get immediate medical attention. Do not induce vomiting.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

PMCC Flash Point: 190.6 C (375.1 F)
Autoignition Temperature: N/A

FLAMMABLE LIMITS IN AIR

LEL: N/A
UEL: N/A

FLAMMABLE PROPERTIES:

Full emergency equipment with self contained breathing apparatus and full protective clothing should be worn.

EXTINGUISHING MEDIA:

Water, carbon dioxide, foam or dry powder. Do not use a direct water stream.

FIRE FIGHTING INSTRUCTIONS:

As in any fire, wear self-contained breathing apparatus pressure-demand MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

SAFEGUARDS (PERSONNEL):

Isolate spill area. May be a slipping hazard.



(section 6 continued)

INITIAL CONTAINMENT:

Contain spilled material. Absorb spills with inert material.

LARGE SPILLS PROCEDURE:

Absorb spill with inert material (e g, dry sand or earth), then place in a chemical waste container. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

SMALL SPILLS PROCEDURE:

Absorb spills with inert material. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

7. HANDLING AND STORAGE

RECOMMENDED STORAGE TEMPERATURE

Minimum: 15.6 C (60.1 F)
Maximum: 26.7 C (80.1 F)

SHELF LIFE: (in original, sealed containers)

18 months @ 26.7 C

HANDLING (PERSONNEL):

Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling.

HANDLING (PHYSICAL ASPECTS):

Provide appropriate ventilation. Close container after each use. Keep container closed to avoid contamination. Keep out of reach of children.

STORAGE PRECAUTIONS:

Avoid extreme temperatures. Keep container closed when not in use. Store in a cool dry place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EYE / FACE PROTECTION REQUIREMENTS:

Wear safety glasses. A respiratory protection program that meets OSHA's 29 CFR 1910-134 and ANSI Z88-2 requirements must be followed whenever workplace conditions warrant a respirator's use.



(section 8 continued)

SKIN PROTECTION REQUIREMENTS:

Selection of specific items such as gloves, boots, apron or full-body suit will depend on operation. Wash hands thoroughly after handling. Product produces slippery conditions.

RESPIRATORY PROTECTION REQUIREMENTS:

When there is potential for airborne exposures in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection.

EXPOSURE GUIDELINES:

ETHYLENE OXIDE

Recommended Exposure Limit: 1 ppm
Odor Threshold: 257-690 ppm
Immediate Lethal Dosage: 800 ppm

ACETALDEHYDE

Recommended Exposure Limit: 25 ppm
Odor Threshold: 0.067 ppm
Immediate Lethal Dosage: 10000 ppm
OSHA PEL: 200 ppm, 360 mg/m³
OSHA TWA: 100 ppm, 180 mg/m³
OSHA STEL: 150 ppm, 270 mg/m³
OSHA Ceiling Limit: 25 ppm, 45 mg/m³

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM: Liquid
COLOR: Amber or red
ODOR: Slight, sweet odor
BOILING POINT: NA F
SOLUBILITY IN WATER ...: Slight
BULK DENSITY: 8.5
VISCOSITY: 400 cps

10. STABILITY AND REACTIVITY

STABILITY:

Stable. Do not heat.

DECOMPOSITION:

Decomposition will not occur if handled and stored properly.



11. TOXICOLOGICAL INFORMATION

No information available.

12. ECOLOGICAL INFORMATION

No information available.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:

Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

14. TRANSPORTATION INFORMATION

PRODUCT LABEL: SpotShot Part 2 (Red)
D.O.T. SHIPPING NAME: N/A
TECHNICAL SHIPPING NAME ...: N/A
D.O.T. HAZARD CLASS: N/A
UN NUMBER: N/A

15. REGULATORY INFORMATION

CA Proposition 65

ANILINE (62-53-3)
ETHYLENE OXIDE (75-21-8)
1,4-DIOXANE (123-91-1)
ACETALDEHYDE (75-07-0)

16. OTHER INFORMATION

PREPARED BY: Dylan Lueth
APPROVED BY: Laura Vollenweider
TITLE: Chemist
APPROVAL DATE: February 23, 2007
SUPERCEDES DATE ...: January 30, 2007
MSDS NUMBER: foam00spotshot
RTN NUMBER: 00000055 (Official Copy)



(section 16 continued)

ADDITIONAL INFORMATION:

The data in this Material Safety Data Sheet relates only to the specific material designated herein.

To the best of our knowledge, the information contained in this MSDS is accurate. It is intended to assist the user in his evaluation of the product's hazards, and safety precautions to be taken in its use. The data in this MSDS relate only to the specific material designated herein. We do not assume liability for the use of, or reliance on this information, nor do we guarantee its accuracy or completeness.

END OF MSDS



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product Name: SpotShot Winter Part 1 (Dark Brown)
Product Number: cartridges
Chemical Name: Polymeric MDI Blend
Chemical Family: POLYMETHYLENE POLYPHENYLISOCYANATE
CAS Number: Mixture

Company Identification

ERSystems- Elastomeric Roofing Systems, Inc.
6900 Bleck Dr
Rockford, MN 55373 USA
1-800-403-7747 (For product information)
1-800-535-5053 Infotrac (For emergencies)

SPECIAL NOTES:

Part A of two part polyurethane system. Polymethylene polyphenylisocyanate.

2. COMPOSITION/INFORMATION ON INGREDIENTS

100.0% SpotShot Winter Part 1 (Dark Brown)

CONTAINING:

HAZARDOUS AND/OR REGULATED COMPONENTS

| <u>Chemical Name</u> | <u>Amount</u> | <u>CAS Number</u> |
|-----------------------------------|---------------|-------------------|
| 4,4'-DIPHENYLMETHANE DIISOCYANATE | 30.0 % | 101-68-8 |

NON-HAZARDOUS COMPONENTS

| <u>Chemical Name</u> | <u>Amount</u> | <u>CAS Number</u> |
|----------------------|---------------|-------------------|
| POLYMERIC MDI | < 40.0 % | 9016-87-9 |
| MDI MIXED ISOMERS | < 3.5 % | 26447-40-5 |

(See Section 8 for exposure guidelines)

(See Section 15 for regulatory information)



(section 2 continued)

HAZARDS DISCLOSURE

This product contains hazardous materials as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

As defined under Sara 311 and 312, this product contains materials that are hazards.

3. HAZARDS IDENTIFICATION

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***** EMERGENCY OVERVIEW *****
*
* CAUTION
*
* Prolonged or repeated contact may cause skin or eye
* irritation. May be harmful if swallowed. Long
* term exposure to isocyanates has been reported to
* cause lung damage, including reduced lung function
* which may be permanent.
*
*****

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HMIS Rating - Health: 2
              Flammability: 1
              Reactivity: 1
              Personal Protection Index: S

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POTENTIAL HEALTH EFFECTS

EYE:
Contact may cause eye irritation. May result in corneal opacity (clouding of the eye surface).

SKIN:
Causes skin burns, irritation, and possible allergic reaction. In those who have developed skin sensitization, these symptoms can develop as a result of contact with a very small amount of the liquid material.

INHALATION:
Avoid breathing vapors or mists. Prolonged or excessive inhalation may cause respiratory tract irritation. May cause allergic respiratory reaction.



(section 3 continued)

INGESTION:

Harmful if swallowed. Can burn mouth, throat, and stomach.

CHRONIC EFFECTS:

Sensitized (allergic) individuals may show allergenic lung and/or skin reaction. Increased sensitivity may persist for weeks and in some extreme cases, years. Any individual diagnosed as sensitive to isocyanates must avoid all exposure.

CARCINOGENICITY INFORMATION:

Listed by IARC and NTP as a carcinogen.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Individuals who are sensitized to isocyanates and those with preexisting lung disease or conditions, including non-specific bronchial hyperreactivity or asthma, must avoid all exposure to isocyanates.

4. FIRST AID MEASURES

EYE CONTACT FIRST AID:

After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get immediate medical attention.

SKIN CONTACT FIRST AID:

Remove contaminated clothing and shoes. Wash affected area immediately with large amounts of soap and water. Get medical attention immediately.

INHALATION FIRST AID:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get immediate medical attention.

INGESTION FIRST AID:

If swallowed, immediately give 2 glasses of water. Do not induce vomiting. Contact a physician. Never give anything by mouth to an unconscious person. Get immediate medical attention.

NOTES TO PHYSICIAN:

There is no antidote to counteract the effects of MDI. Care should be supportive and treatment should be based on the judgment of the physician in response to the action of the patient.



5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

COC Flash Point: 220 C (428.0 F)
Autoignition Temperature: N/A

FLAMMABLE LIMITS IN AIR

LEL: N/A
UEL: N/A

FLAMMABLE PROPERTIES:

Full emergency equipment with self contained breathing apparatus and full protective clothing should be worn. At temperatures greater than 400 F material may polymerize causing pressure build up in closed containers. Explosive rupture is possible. Use cold water to cool containers exposed to fire.

EXTINGUISHING MEDIA:

Water, carbon dioxide, foam or dry powder.

FIRE & EXPLOSION HAZARDS:

Material will burn in a fire.

FIRE FIGHTING INSTRUCTIONS:

As in any fire, wear self-contained breathing apparatus pressure-demand MSHA/NIOSH (approved or equivalent) and full protective gear.

MISCELLANEOUS:

Reacts with water to form carbon dioxide gas, which may create excessive pressure in containers. Reacts exothermically with polyol and alcohols. Reacts exothermically and possibly violently with acids, amines and alkaline solutions.

6. ACCIDENTAL RELEASE MEASURES

SAFEGUARDS (PERSONNEL):

Evacuate non-emergency personnel to a safe area. Avoid breathing vapor. Ventilate spill area. Wear safety goggles. Wear appropriate personal protective equipment.

INITIAL CONTAINMENT:

Contain spilled material. Absorb spills with inert material. Place in closed containers but do not seal.



(section 6 continued)

LARGE SPILLS PROCEDURE:

Absorb spill with inert material (e g, dry sand or earth), then place in a chemical waste container. Place in closed containers but do not seal. Neutralize spill with mixture of 90% water, 3-8% ammonia and 2-7% detergent. Add at a 10 to 1 ratio and let stand for 48 hrs allowing CO2 to escape.

7. HANDLING AND STORAGE

RECOMMENDED STORAGE TEMPERATURE

Minimum: 15.6 C (60.1 F)
Maximum: 26.7 C (80.1 F)

SHELF LIFE: (in original, sealed containers)

16 months @ 26.7 C

HANDLING (PERSONNEL):

Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Wash hands thoroughly after handling. Do not reuse this container.

HANDLING (PHYSICAL ASPECTS):

Provide appropriate ventilation. Close container after each use. Keep container closed to avoid contamination. Keep out of reach of children.

STORAGE PRECAUTIONS:

Avoid extreme temperatures. Keep container closed when not in use. Store in a cool dry place.

SPECIAL SENSITIVITY:

All handling equipment should be electrically grounded.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.



(section 8 continued)

EYE / FACE PROTECTION REQUIREMENTS:

Wear safety glasses. A respiratory protection program that meets OSHA's 29 CFR 1910-134 and ANSI Z88-2 requirements must be followed whenever workplace conditions warrant a respirator's use.

SKIN PROTECTION REQUIREMENTS:

Selection of specific items such as gloves, boots, apron or full-body suit will depend on operation.

RESPIRATORY PROTECTION REQUIREMENTS:

When there is potential for airborne exposures in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection.

EXPOSURE GUIDELINES:

No Information Available.

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM: Liquid
COLOR: Brown
ODOR: Aromatic
BOILING POINT: 200 C @ 5 mm Hg
VAPOR PRESSURE ...: 0.00001 mm Hg @ 20 C
BULK DENSITY: 9.65 lb/USg
VISCOSITY: 300 cps

MISCELLANEOUS:

Water reactivity.

10. STABILITY AND REACTIVITY

STABILITY:

Stable.

POLYMERIZATION:

May occur.

INCOMPATIBILITY WITH OTHER MATERIALS:

Incompatible or can react with acids, bases, oxidizers.

DECOMPOSITION:

Decomposition will not occur if handled and stored properly.



(section 10 continued)

CONDITIONS TO AVOID:

Moisture may produce CO2.

11. TOXICOLOGICAL INFORMATION

No information available.

12. ECOLOGICAL INFORMATION

No information available.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:

Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

14. TRANSPORTATION INFORMATION

PRODUCT LABEL: SpotShot Winter Part 1 (Dark Brown)
PRODUCT RQ (LBS) ...: < 793 gallons not regulated by DOT

15. REGULATORY INFORMATION

Canadian Disclosure List

4,4'-DIPHENYLMETHANE DIISOCYANATE (101-68-8)

SARA Title III - Section 313

4,4'-DIPHENYLMETHANE DIISOCYANATE (101-68-8) --
Polymeric MDI (9016-87-9) --
MDI MIXED ISOMERS (26447-40-5) --

Title v

4,4'-DIPHENYLMETHANE DIISOCYANATE (101-68-8)

SC Toxic Air Pollutants List

4,4'-DIPHENYLMETHANE DIISOCYANATE (101-68-8)



16. OTHER INFORMATION

PREPARED BY: Laura Vollenweider
APPROVED BY: Laura Vollenweider
TITLE: Chemist
APPROVAL DATE: February 23, 2007
SUPERCEDES DATE ...: June 5, 2006
MSDS NUMBER: foam00ssw
RTN NUMBER: 00000078 (Official Copy)

ADDITIONAL INFORMATION:

The data in this Material Safety Data Sheet relates only to the specific material designated herein.

To the best of our knowledge, the information contained in this MSDS is accurate. It is intended to assist the user in his evaluation of the product's hazards, and safety precautions to be taken in its use. The data in this MSDS relate only to the specific material designated herein. We do not assume liability for the use of, or reliance on this information, nor do we guarantee its accuracy or completeness.

END OF MSDS



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product Name: SpotShot Winter Part 2 (Red)
Product Number: cartridges
Chemical Name: Polyurethane System Resin
Component
Chemical Family: NA
CAS Number: Blend

Company Identification

ERSystems- Elastomeric Roofing Systems, Inc.
6900 Bleck Dr
Rockford, MN 55373 USA
1-800-403-7747 (For product information)
1-800-535-5053 Infotrac (For emergencies)

SPECIAL NOTES:

Polyurethane foam system resin component. Part B (Part 2) of a two part system.

2. COMPOSITION/INFORMATION ON INGREDIENTS

100.0% SpotShot Winter Part 2 (Red)

CONTAINING:

HAZARDOUS AND/OR REGULATED COMPONENTS

| <u>Chemical Name</u> | <u>Amount</u> | <u>CAS Number</u> |
|----------------------|---------------|-------------------|
| ANILINE | < 0.1 % | 62-53-3 |
| ETHYLENE OXIDE | < 0.1 % | 75-21-8 |



(section 2 continued)

NON-HAZARDOUS COMPONENTS

| <u>Chemical Name</u> | <u>Amount</u> | <u>CAS Number</u> |
|---|---------------|-------------------|
| DIETHYLENE GLYCOL | < 10.0 % | 111-46-6 |
| DIPROPYLENE GLYCOL | < 10.0 % | 25265-71-8 |
| 4,4'-BIS(SEC-BUTYLAMINO)DIPHENYLMETHANE | < 15.0 % | 5285-60-9 |
| 1,4-DIOXANE | < 0.1 % | 123-91-1 |
| ACETALDEHYDE | < 0.1 % | 75-07-0 |

(See Section 8 for exposure guidelines)

(See Section 15 for regulatory information)

3. HAZARDS IDENTIFICATION

```

***** EMERGENCY OVERVIEW *****
*
* CAUTION *
*
* May be harmful if swallowed. *
*
*****

```

HMIS Rating - Health: 1
Flammability: 0
Reactivity: 0
Personal Protection Index: S

POTENTIAL HEALTH EFFECTS

EYE:
Contact may cause eye irritation and injury.

SKIN:
Not expected to be a skin irritant. A single, prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts.

INHALATION:
Avoid breathing vapors or mists. Prolonged or excessive inhalation may cause respiratory tract irritation.

INGESTION:
Harmful if swallowed.



4. FIRST AID MEASURES

EYE CONTACT FIRST AID:

After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention if irritation develops or persists.

SKIN CONTACT FIRST AID:

Wash affected area with waterless hand cleaner. Then wash with lots of water and soap. Get medical attention if irritation develops or persists.

INHALATION FIRST AID:

Remove to fresh air if effects occur.

INGESTION FIRST AID:

If swallowed get immediate medical attention. Never give anything by mouth to an unconscious person. Do not induce vomiting. Contact a physician.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

PMCC Flash Point: 190.6 C (375.1 F)
Autoignition Temperature: N/A

FLAMMABLE LIMITS IN AIR

LEL: N/A
UEL: N/A

FLAMMABLE PROPERTIES:

Full emergency equipment with self contained breathing apparatus and full protective clothing should be worn.

EXTINGUISHING MEDIA:

Water, carbon dioxide, foam or dry powder.

FIRE & EXPLOSION HAZARDS:

Combustible. On heating/burning: release of toxic and corrosive gases/vapors.

FIRE FIGHTING INSTRUCTIONS:

As in any fire, wear self-contained breathing apparatus pressure-demand MSHA/NIOSH (approved or equivalent) and full protective gear.



6. ACCIDENTAL RELEASE MEASURES

SAFEGUARDS (PERSONNEL):

Isolate spill area. May be a slipping hazard.

INITIAL CONTAINMENT:

Contain spilled material. Absorb spills with inert material.

LARGE SPILLS PROCEDURE:

Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

SMALL SPILLS PROCEDURE:

Absorb spills with inert material. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

7. HANDLING AND STORAGE

RECOMMENDED STORAGE TEMPERATURE

Minimum: 15.6 C (60.1 F)

Maximum: 26.7 C (80.1 F)

SHELF LIFE: (in original, sealed containers)

16 months @ 26.7 C

HANDLING (PERSONNEL):

Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling.

HANDLING (PHYSICAL ASPECTS):

Provide appropriate ventilation. Close container after each use. Keep container closed to avoid contamination. Keep out of reach of children.

STORAGE PRECAUTIONS:

Avoid extreme temperatures. Keep container closed when not in use. Store in a cool dry place.

SPECIAL SENSITIVITY:

Avoid packaging material in: aluminum, copper, zinc, tin.



8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:

Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product.

EYE / FACE PROTECTION REQUIREMENTS:

Wear safety glasses. A respiratory protection program that meets OSHA's 29 CFR 1910-134 and ANSI Z88-2 requirements must be followed whenever workplace conditions warrant a respirator's use.

SKIN PROTECTION REQUIREMENTS:

Selection of specific items such as gloves, boots, apron or full-body suit will depend on operation. Wash hands thoroughly after handling. Product produces slippery conditions.

RESPIRATORY PROTECTION REQUIREMENTS:

When there is potential for airborne exposures in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection.

EXPOSURE GUIDELINES:

No Information Available.

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM: Liquid
COLOR: Amber or red
ODOR: Slight, sweet odor
BOILING POINT: 441 C
SOLUBILITY IN WATER ...: Slight
BULK DENSITY: 8.5
VISCOSITY: 300 cps

10. STABILITY AND REACTIVITY

STABILITY:

Stable. Do not heat.

INCOMPATIBILITY WITH OTHER MATERIALS:

Keep away from heat sources, oxidizing agents, reducing agents.



(section 10 continued)

DECOMPOSITION:

Decomposition will not occur if handled and stored properly. On heating/burning release of toxic and corrosive gases/vapors may occur (nitrous vapors, carbon monoxide, carbon dioxide).

11. TOXICOLOGICAL INFORMATION

No information available.

12. ECOLOGICAL INFORMATION

No information available.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:

Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

14. TRANSPORTATION INFORMATION

PRODUCT LABEL: SpotShot Winter Part 2 (Red)
D.O.T. SHIPPING NAME: N/A
TECHNICAL SHIPPING NAME ...: N/A
D.O.T. HAZARD CLASS: N/A
UN NUMBER: N/A

15. REGULATORY INFORMATION

CA Proposition 65

ANILINE (62-53-3)
ETHYLENE OXIDE (75-21-8)
1,4-DIOXANE (123-91-1)
ACETALDEHYDE (75-07-0)



16. OTHER INFORMATION

PREPARED BY: Dylan Lueth
APPROVED BY: Laura Vollenweider
TITLE: Chemist
APPROVAL DATE: February 23, 2007
SUPERCEDES DATE ...: January 30, 2007
MSDS NUMBER: foam00ssw
RTN NUMBER: 00001234 (Official Copy)

ADDITIONAL INFORMATION:

The data in this Material Safety Data Sheet relates only to the specific material designated herein.

To the best of our knowledge, the information contained in this MSDS is accurate. It is intended to assist the user in his evaluation of the product's hazards, and safety precautions to be taken in its use. The data in this MSDS relate only to the specific material designated herein. We do not assume liability for the use of, or reliance on this information, nor do we guarantee its accuracy or completeness.

END OF MSDS



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product Name: Night Shot Part 1
Chemical Name: Polymeric MDI
Chemical Family: POLYMETHYLENE POLYPHENYLISOCYANATE
CAS Number: Mixture

Company Identification

ERSystems- Elastomeric Roofing Systems, Inc.
6900 Bleck Dr
Rockford, MN 55373 USA
1-800-403-7747 (For product information)
1-800-535-5053 Infotrac (For emergencies)

SPECIAL NOTES:

Part A of two part polyurethane system. Polymethylene polyphenylisocyanate.

2. COMPOSITION/INFORMATION ON INGREDIENTS

100.0% Night Shot Part 1

CONTAINING:

HAZARDOUS AND/OR REGULATED COMPONENTS

| <u>Chemical Name</u> | <u>Amount</u> | <u>CAS Number</u> |
|-----------------------------------|---------------|-------------------|
| 4,4'-DIPHENYLMETHANE DIISOCYANATE | 38.0 % | 101-68-8 |

NON-HAZARDOUS COMPONENTS

| <u>Chemical Name</u> | <u>Amount</u> | <u>CAS Number</u> |
|----------------------|---------------|-------------------|
| POLYMERIC MDI | < 55.0 % | 9016-87-9 |
| MDI MIXED ISOMERS | < 10.0 % | 26447-40-5 |

(See Section 8 for exposure guidelines)

(See Section 15 for regulatory information)

HAZARDS DISCLOSURE



(section 2 continued)

This product contains hazardous materials as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

As defined under Sara 311 and 312, this product contains materials that are hazards.

3. HAZARDS IDENTIFICATION

```

***** EMERGENCY OVERVIEW *****
*
* CAUTION
*
* Contains Diphenylmethane Diisocyanate. Inhalation
* of MDI mists or vapors may cause respiratory
* irritation, breathlessness, chest discomfort and
* reduced pulmonary function. Overexposure well
* above the PEL may result in bronchitis, bronchial
* spasms and pulmonary edema. Long-term exposure to
* isocyanates has been reported to cause lung damage,
* including reduced lung function which may be
* permanent. Acute or chronic overexposure to
* isocyanates may cause sensitization in some
* individuals, resulting in allergic respiratory
* reactions including wheezing, shortness of breath,
* and difficulty breathing.
*
*****

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HMIS Rating - Health: *2
 Flammability: 1
 Reactivity: 1

NFPA/HMIS Definitions: (0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

POTENTIAL HEALTH EFFECTS

EYE:

Contact may cause eye irritation. May result in corneal opacity (clouding of the eye surface).



(section 3 continued)

SKIN:

Causes skin burns, irritation, and possible allergic reaction. In those who have developed skin sensitization, these symptoms can develop as a result of contact with a very small amount of the liquid material.

INHALATION:

Inhalation of MDI vapors may cause irritation of the mucous membranes of the nose, throat or trachea, breathlessness, chest discomfort, difficult breathing and reduced pulmonary function.

INGESTION:

Harmful if swallowed. Can burn mouth, throat, and stomach. Gastrointestinal symptoms include nausea, vomiting and abdominal pain.

CHRONIC EFFECTS:

As a result of previous repeated overexposures or a single large dose, certain individuals will develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate at levels well below the PEL/TLV. These symptoms, which include chest tightness, wheezing, cough, shortness of breath, or asthmatic attack, could be immediate or delayed up to several hours after exposure. Chronic overexposure to isocyanates has also been reported to cause lung damage, including a decrease in lung function, which may be permanent. Sensitization may be either temporary or permanent. Prolonged contact can cause reddening, swelling, rash, scaling, or blistering. In those who have developed skin sensitization, these symptoms can develop as a result of contact with very small amounts of liquid material.

REPRODUCTIVE HAZARDS:

No birth defects or teratogenic effects were reported in a teratology study with rats exposed to 1, 4 and 12mg/m³ polymeric MDI for 6 hr/day on days 6-15 of gestation. Embryotoxicity and fetotoxicity was reported at the top dose in the presence of maternal toxicity.

CARCINOGENICITY INFORMATION:

Listed by IARC and NTP as a carcinogen.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Individuals who are sensitized to isocyanates and those with preexisting lung disease or conditions, including non-specific bronchial hyperreactivity or asthma, must avoid all exposure to isocyanates.



4. FIRST AID MEASURES

EYE CONTACT FIRST AID:

After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get immediate medical attention.

SKIN CONTACT FIRST AID:

Remove contaminated clothing and shoes. Wash affected area immediately with large amounts of soap and water. Get medical attention immediately.

INHALATION FIRST AID:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get immediate medical attention.

INGESTION FIRST AID:

If swallowed, immediately give 2 glasses of water. Do not induce vomiting. Contact a physician. Never give anything by mouth to an unconscious person. Get immediate medical attention.

NOTES TO PHYSICIAN:

There is no antidote to counteract the effects of MDI. Care should be supportive and treatment should be based on the judgment of the physician in response to the action of the patient.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

COC Flash Point: 220 C (428.0 F)

Autoignition Temperature: N/A

FLAMMABLE LIMITS IN AIR

LEL: N/A

UEL: N/A

FLAMMABLE PROPERTIES:

Full emergency equipment with self contained breathing apparatus and full protective clothing should be worn. At temperatures greater than 400 F material may polymerize causing pressure build up in closed containers. Explosive rupture is possible. Use cold water to cool containers exposed to fire.

EXTINGUISHING MEDIA:

Water, carbon dioxide, foam or dry powder.



(section 5 continued)

FIRE & EXPLOSION HAZARDS:

Material will burn in a fire.

FIRE FIGHTING INSTRUCTIONS:

As in any fire, wear self-contained breathing apparatus pressure-demand MSHA/NIOSH (approved or equivalent) and full protective gear.

MISCELLANEOUS:

Reacts with water to form carbon dioxide gas, which may create excessive pressure in containers. Reacts exothermically with polyol and alcohols. Reacts exothermically and possibly violently with acids, amines and alkaline solutions.

6. ACCIDENTAL RELEASE MEASURES

SAFEGUARDS (PERSONNEL):

Evacuate non-emergency personnel to a safe area. Avoid breathing vapor. Ventilate spill area. Wear safety goggles. Wear appropriate personal protective equipment.

INITIAL CONTAINMENT:

Contain spilled material. Absorb spills with inert material. Place in closed containers but do not seal.

LARGE SPILLS PROCEDURE:

Absorb spill with inert material (e g, dry sand or earth), then place in a chemical waste container. Place in closed containers but do not seal. Neutralize spill with mixture of 90% water, 3-8% ammonia and 2-7% detergent. Add at a 10 to 1 ratio and let stand for 48 hrs allowing CO2 to escape.

MISCELLANEOUS:

Do not discharge into drains/surface waters/groundwater.

7. HANDLING AND STORAGE

RECOMMENDED STORAGE TEMPERATURE

Minimum: 15.6 C (60.1 F)

Maximum: 26.7 C (80.1 F)

SHELF LIFE: (in original, sealed containers)

6 months @ 26.7 C



(section 7 continued)

HANDLING (PERSONNEL):

Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Wash hands thoroughly after handling. Do not reuse this container.

HANDLING (PHYSICAL ASPECTS):

Provide appropriate ventilation. Close container after each use. Keep container closed to avoid contamination. Keep out of reach of children.

STORAGE PRECAUTIONS:

Avoid extreme temperatures. Keep container closed when not in use. Store in a cool dry place.

SPECIAL SENSITIVITY:

All handling equipment should be electrically grounded.

MISCELLANEOUS:

Protect from moisture.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

EYE / FACE PROTECTION REQUIREMENTS:

Wear safety glasses. A respiratory protection program that meets OSHA's 29 CFR 1910-134 and ANSI Z88-2 requirements must be followed whenever workplace conditions warrant a respirator's use.

SKIN PROTECTION REQUIREMENTS:

Selection of specific items such as gloves, boots, apron or full-body suit will depend on operation.

RESPIRATORY PROTECTION REQUIREMENTS:

When there is potential for airborne exposures in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection.

EXPOSURE GUIDELINES:

No Information Available.



9. PHYSICAL AND CHEMICAL PROPERTIES

FORM: Liquid
COLOR: Dark Brown
ODOR: Aromatic
BOILING POINT: 200 C @ 5 mm Hg
VAPOR PRESSURE: 0.00001 mm Hg @ 20 C
SOLUBILITY IN WATER: Reacts with water
SPECIFIC GRAVITY: 1.22 (Water = 1)
BULK DENSITY: 10.16 lb/USg
MELTING/FREEZING POINT ...: 3 C
VISCOSITY: 200 cps

10. STABILITY AND REACTIVITY

STABILITY:

Stable.

POLYMERIZATION:

May occur.

INCOMPATIBILITY WITH OTHER MATERIALS:

Reacts with water, with formation of carbon dioxide. Risk of bursting. Reacts with alcohols, acids, alkalis, amines. Risk of exothermic reaction. Risk of violent reaction. Contact with certain rubbers and plastics can cause brittleness of the substance with subsequent loss in strength.

DECOMPOSITION:

Hazardous decomposition products: carbon monoxide, hydrogen cyanide, nitrogen oxides, aromatic isocyanates, gases/vapors.

CONDITIONS TO AVOID:

Avoid moisture.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL EFFECTS:

LD50/rat: > 10,000 mg/kg. Practically nontoxic.

ACUTE INHALATION EFFECTS:

LD50/rat: > 2.240 mg/l / 1h

Moderately toxic.



12. ECOLOGICAL INFORMATION

No information available.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:

Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

CONTAINER DISPOSAL:

Steel drums must be emptied and can be sent to a licensed drum reconditioner for reuse, a scrap metal dealer, or an approved landfill. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. TRANSPORTATION INFORMATION

PRODUCT LABEL ...: Night Shot Part 1

15. REGULATORY INFORMATION

Canadian Disclosure List

4,4'-DIPHENYLMETHANE DIISOCYANATE (101-68-8)

Title V

4,4'-DIPHENYLMETHANE DIISOCYANATE (101-68-8)

SC Toxic Air Pollutants List

4,4'-DIPHENYLMETHANE DIISOCYANATE (101-68-8)

16. OTHER INFORMATION

PREPARED BY: Laura Vollenweider
APPROVED BY: Laura Vollenweider
TITLE: Chemist
APPROVAL DATE: February 21, 2006
SUPERCEDES DATE ...: New
MSDS NUMBER: foam00ns
RTN NUMBER: 00000124 (Official Copy)



(section 16 continued)

ADDITIONAL INFORMATION:

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END OF MSDS



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product Name: Night Shot Part 2
Product Number: cartridges
Chemical Name: Polyurethane System Resin
Component
Chemical Family: NA
CAS Number: Blend

Company Identification

ERSystems- Elastomeric Roofing Systems, Inc.
6900 Bleck Dr
Rockford, MN 55373 USA
1-800-403-7747 (For product information)
1-800-535-5053 Infotrac (For emergencies)

SPECIAL NOTES:

Polyurethane foam system resin component. Part B (Part 2) of a two part system.

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT LISTING:

| <u>Chemical Name</u> | <u>Amount</u> | <u>CAS Number</u> |
|----------------------|---------------|-------------------|
| DIETHYLENE GLYCOL | < 10.0 % | 111-46-6 |
| DIPROPYLENE GLYCOL | < 10.0 % | 25265-71-8 |

(See Section 8 for exposure guidelines)

(See Section 15 for regulatory information)



3. HAZARDS IDENTIFICATION

```

***** EMERGENCY OVERVIEW *****
*
* CAUTION *
*
* May be harmful if swallowed. *
*
*****

```

HMIS Rating - Health: 1
 Flammability: 0
 Reactivity: 0
 Personal Protection Index: S

POTENTIAL HEALTH EFFECTS

EYE:
 Contact may cause eye irritation and injury.

SKIN:
 Not expected to be a skin irritant. A single, prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts.

INHALATION:
 Avoid breathing vapors or mists. Prolonged or excessive inhalation may cause respiratory tract irritation.

INGESTION:
 Harmful if swallowed.

4. FIRST AID MEASURES

EYE CONTACT FIRST AID:
 After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention if irritation develops or persists.

SKIN CONTACT FIRST AID:
 Wash affected area. Get medical attention if irritation develops or persists.



(section 4 continued)

INHALATION FIRST AID:

Remove to fresh air if effects occur.

INGESTION FIRST AID:

If swallowed get immediate medical attention. Do not induce vomiting.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

PMCC Flash Point: 190.6 C (375.1 F)

Autoignition Temperature: N/A

FLAMMABLE LIMITS IN AIR

LEL: N/A

UEL: N/A

FLAMMABLE PROPERTIES:

Full emergency equipment with self contained breathing apparatus and full protective clothing should be worn.

EXTINGUISHING MEDIA:

Water, carbon dioxide, foam or dry powder. Do not use a direct water stream.

FIRE FIGHTING INSTRUCTIONS:

As in any fire, wear self-contained breathing apparatus pressure-demand MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

SAFEGUARDS (PERSONNEL):

Isolate spill area. May be a slipping hazard.

INITIAL CONTAINMENT:

Contain spilled material. Absorb spills with inert material.

LARGE SPILLS PROCEDURE:

Absorb spill with inert material (e g, dry sand or earth), then place in a chemical waste container. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.



(section 6 continued)

SMALL SPILLS PROCEDURE:

Absorb spills with inert material. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

7. HANDLING AND STORAGE

RECOMMENDED STORAGE TEMPERATURE

Minimum: 15.6 C (60.1 F)

Maximum: 26.7 C (80.1 F)

SHELF LIFE: (in original, sealed containers)

8 months @ 26.7 C

HANDLING (PERSONNEL):

Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling.

HANDLING (PHYSICAL ASPECTS):

Provide appropriate ventilation. Close container after each use. Keep container closed to avoid contamination. Keep out of reach of children.

STORAGE PRECAUTIONS:

Avoid extreme temperatures. Keep container closed when not in use. Store in a cool dry place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EYE / FACE PROTECTION REQUIREMENTS:

Wear safety glasses. A respiratory protection program that meets OSHA's 29 CFR 1910-134 and ANSI Z88-2 requirements must be followed whenever workplace conditions warrant a respirator's use.

SKIN PROTECTION REQUIREMENTS:

Selection of specific items such as gloves, boots, apron or full-body suit will depend on operation. Wash hands thoroughly after handling. Product produces slippery conditions.

RESPIRATORY PROTECTION REQUIREMENTS:

When there is potential for airborne exposures in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection.



(section 8 continued)

EXPOSURE GUIDELINES:

No Information Available.

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM: Liquid
COLOR: Opaque white
ODOR: Slight, sweet odor
BOILING POINT: NA F
SOLUBILITY IN WATER ...: Slight
BULK DENSITY: 8.5
VISCOSITY: 400 cps

10. STABILITY AND REACTIVITY

STABILITY:

Stable. Do not heat.

DECOMPOSITION:

Decomposition will not occur if handled and stored properly.

11. TOXICOLOGICAL INFORMATION

No information available.

12. ECOLOGICAL INFORMATION

No information available.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:

Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.



14. TRANSPORTATION INFORMATION

PRODUCT LABEL: Night Shot Part 2
D.O.T. SHIPPING NAME: N/A
TECHNICAL SHIPPING NAME ...: N/A
D.O.T. HAZARD CLASS: N/A
UN NUMBER: N/A

15. REGULATORY INFORMATION

No information available.

16. OTHER INFORMATION

PREPARED BY: Laura Vollenweider
APPROVED BY: Laura Vollenweider
TITLE: Chemist
APPROVAL DATE: February 21, 2006
SUPERCEDES DATE ...: New
MSDS NUMBER: foam00nightshot
RTN NUMBER: 00000125 (Official Copy)

ADDITIONAL INFORMATION:

The data in this Material Safety Data Sheet relates only to the specific material designated herein.

To the best of our knowledge, the information contained in this MSDS is accurate. It is intended to assist the user in his evaluation of the product's hazards, and safety precautions to be taken in its use. The data in this MSDS relate only to the specific material designated herein. We do not assume liability for the use of, or reliance on this information, nor do we guarantee its accuracy or completeness.

END OF MSDS

