



95 Goodwin Street, East Hartford, CT., 06108 (860) 528-9838

Material Safety Data Sheet

Date Prepared 1/3/2011

| | | | |
|-----------------------------------|---|---------------------|---|
| SECTION I - IDENTIFICATION | HAZARD RATING | Health | 2 |
| | 0 = Least | Flammability | 2 |
| | 1 = Slight | Reactivity | 1 |
| | 2 = Moderate | Personal Protection | G |
| IDENTITY (As Used on Label) | Armor Top Hardener | | |
| COMMON NAME | Aliphatic Polyisocyanate Resin Solution | | |
| | 3 = High | | |
| | 4 = Extreme | | |

| SECTION II - PRODUCT COMPONENTS | CAS.# | OSHA PEL | ACGIH TLV |
|---|-------------|-------------------|-----------|
| Homopolymer of HDI | 28182-81-2 | N.E. ¹ | N.E. |
| Hexamethylene Diisocyanate (HDI) ² | 822-06-0 | N.E. | 0.005ppm |
| Dimethyl Ester | Proprietary | N.E. | N.E. |
| Methyl-1,3-dioxolan-2-one | 108-32-7 | N.E. | N.E. |
| | | | |
| | | | |
| | | | |
| | | | |

¹not established²Residual monomer content is less than 0.5% based on resin solids at the time of manufacture.

T.S.C.A. Status - O.K. on all above components.

FOR SPILL, LEAK, FIRE, OR ACCIDENT, CALL CHEMTREC 24-HOUR EMERGENCY NUMBER 1-800-424-9300**SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS**

| | | | | |
|--|------------------------------|------------------------|---|-------|
| Boiling Point | DPMA | 392°F | Specific Gravity (H ₂ O = 1) | 1.11 |
| Vapor Pressure (mm Hg) | HDI | 4.7 x 10 ⁻⁷ | Melting Point | N/A |
| Vapor Density (AIR = 1) | DPMA | 6.6 | Evaporation rate (Butyl Acetate = 1) | 0.015 |
| Volatile Organic Compounds (VOC) = Nil | | | | |
| Solubility in Water | NOT SOLUBLE. | | | |
| Appearance and Odor | Clear, mild ester-like odor. | | | |

SECTION IV - FIRE and EXPLOSION HAZARD DATA

| | | | | |
|---|---|------------------|-------|--------|
| Flash Point (Closed Cup Method) | 110°F | Flammable Limits | LEL | UEL |
| | | N/A | 4.22% | 12.87% |
| Extinguishing Media | Dry Chemicals, CO ₂ , Universal Type Foam. | | | |
| Special Firefighting Procedures | | | | |
| Wear full protective equipment including self-contained breathing apparatus. During a fire, HDI vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion. Closed container may explode when exposed to extreme heat or burst when contaminated with water (CO ₂ evolved). | | | | |
| Unusual Fire and Explosion Hazards Rags or waste soaked with this product and/or solvents, may spontaneously combust if improperly discarded. Prior to disposal, spread out all rags or other waste to dry before disposal. | | | | |

SECTION V - REACTIVITY DATA

| | | | |
|---------------------------------------|---|---|--|
| Stability | Unstable | | Conditions to Avoid |
| | Stable | X | Keep containers closed when not in use. Avoid static discharge. Flammable vapors released at elevated temps. |
| Incompatibility (Materials to Avoid) | Avoid oxidizers and phosphorus-containing materials. | | |
| Hazardous Decomposition or Byproducts | Fire may yield carbon monoxide and/or carbon dioxide. | | |
| Hazardous Polymerization | May Occur | X | Conditions to Avoid |
| | Will Not Occur | | Contact with moisture or other materials which react with isocyanates or temperatures above 400F. |

SECTION VI - HEALTH HAZARD DATA

| | | | |
|---|--|-------|------------|
| Route(s) of Entry: | Inhalation? | Skin? | Ingestion? |
| | Yes | YES | Yes |
| Signs and Symptoms of Exposure | Irritation and redness of skin and eyes. Breathing difficulty. | | |
| Health Hazards (Acute and Chronic) | | | |
| ACUTE - prolonged skin exposure can cause irritation, dermatitis. Inhalation of vapors can cause nasal and respiratory irritation, dizziness, headache, nausea. | | | |
| CHRONIC - prolonged or repeated exposure to vapors may cause lung damage as well as increased sensitivity. | | | |

| | | | |
|------------------|------|------------------|-----------------|
| Carcinogenicity: | NTP? | IARC Monographs? | OSHA Regulated? |
| | NO | NO | NO |

Medical Conditions Generally Aggravated by Exposure
 Asthma and other respiratory disorders(bronchitis, emphysema, hyperreactivity), skin allergies, eczema.

Emergency and First Aid Procedures

EYES - Flush with water, holding lids open for 15 minutes or more. Call physician for advice if necessary.

Skin - remove contaminate clothing. Clean affected area with mild soap and water. If irritation or redness develops, seek medical attention.

INHALATION- move person away from source of exposure and into fresh air. If person is not breathing, give artificial respiration and seek medical attention immediately. If breathing difficulty develops, give oxygen and seek medical attention immediately.

****NOTE** PERSONS WITH LUNG DISORDERS OR WHO ARE SENSITIZED SHOULD NOT USE THIS PRODUCT.**

SECTION VII - CONTROL MEASURES

Respiratory Protection (Specify Type) Provide adequate exhaust ventilation. Use a NIOSH approved respirator as outlined in 42 CFR 84 and 29 CFR 1910.134 effective for solvent and diisocyanate vapors.

| | | | | |
|-------------|---------------|--|---------|-----------------------------------|
| Ventilation | Local Exhaust | Use in confined areas. | Special | Explosion proof fans when needed. |
| | Mechanical | Must be sufficient to maintain area below established TLV/PEL. | | |

| | | | |
|-------------------|-------------------------|----------------|-----------------------|
| Protective Gloves | Neoprene rubber gloves. | Eye Protection | Splash proof goggles. |
|-------------------|-------------------------|----------------|-----------------------|

Other Protective Clothing or Equipment

Use other protective equipment such as rubber aprons and a face shield if danger of splashing is possible.

Eye wash station or clear water must be readily available. ENFORCE GOOD HYGIENE PRACTICES. No smoking or open lights in work area. Exposure to liquid, vapors, mists or fumes must be minimized. Use air supplied respirators in enclosed areas and when PEL/TLV is higher than established level.

Work/Hygienic Practices Launder contaminated clothing before use. Dispose contaminated leather shoes

SECTION VIII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be Taken in Case Material is Released or Spilled

Shut off and eliminate all ignition sources. Keep people away. Add sand, earth or other absorbent to spill area. Ventilate confined spaces. Open windows and doors, minimize breathing vapors and skin contact. Keep spill out of sewers by diking. Observe precautions for volatile, flammable vapors from absorbed material.

Waste Disposal Method

Incineration in accordance with local, state, and federal regulations.

Precautions to be Taken in Handling and Storing Keep containers tightly closed when not in use and away from excessive heat and flame. DO NOT pressurize, cut, weld, solder, drill or grind the containers.

Other Precautions Store in an OSHA approved area for flammable materials.

Prepared by Samet Dy - Urethane Chemist

PLEASE NOTE "The above information is accurate to the best of our knowledge. However, since data, safety standards, and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, Dur-A-Flex, Inc. MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND DISCLAIMS ALL LIABILITY FOR RELIANCE THEREON. User should satisfy himself that he has all current data relevant to his particular use."



DUR-A-FLEX
INNOVATION FROM THE FLOOR UP

95 Goodwin Street, East Hartford, CT., 06108 (860) 528-9838

Material Safety Data Sheet

Date Prepared 12/17/2010

| | | | |
|------------------------------------|--|---------------------|---|
| SECTION I - IDENTIFICATION | HAZARD RATING 0 = Least 1 = Slight 2 = Moderate 3 = High 4 = Extreme | Health | 1 |
| | | Flammability | 2 |
| | | Reactivity | 0 |
| | | Personal Protection | G |
| IDENTITY (As Used on Label) | Armor Top Colorant: all colors | | |
| COMMON NAME | Liquid Colorant Additive for Urethane | | |

| SECTION II - PRODUCT COMPONENTS | CAS.# | OSHA PEL | ACGIH TLV |
|--|--------------|-----------------|------------------|
|--|--------------|-----------------|------------------|

| SECTION II - PRODUCT COMPONENTS | CAS.# | OSHA PEL | ACGIH TLV |
|---|--------------|-----------------------------|-----------------------------|
| Dipropylene glycol monomethyl ether acetate | 88917-22-0 | NE ¹ | NE |
| Titanium Dioxide | 13463-67-7 | 15mg/m ³ (Dust) | 10mmg/m ³ |
| Red Iron Oxide | 1332-37-2 | 10mg/m ³ | 5mg/m ³ |
| Yellow Iron Oxide | 51274-00-1 | NE | NE |
| Carbon Black | 1333-86-4 | 3.5mg/m ³ (dust) | 3.5mg/m ³ (dust) |

¹not established

T.S.C.A. Status - O.K. on all above components.

FOR SPILL, LEAK, FIRE, OR ACCIDENT, CALL CHEMTREC 24-HOUR EMERGENCY NUMBER 1-800-424-9300

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

| | | | | |
|---|-------|-------|--------------------------------------|-------|
| Boiling Point | DPMA | 392°F | Specific Gravity (H2O = 1) | 1.11 |
| Vapor Pressure (mm Hg) | 77 °F | 0.05 | Melting Point | N/A |
| Vapor Density (AIR = 1) | DPMA | 6.6 | Evaporation rate (Butyl Acetate = 1) | 0.015 |
| Volatile Organic Compounds (VOC) = 74 grams/liter | | | | |
| Solubility in Water NOT SOLUBLE. | | | | |
| Appearance and Odor Clear, mild ester-like odor. | | | | |

SECTION IV - FIRE and EXPLOSION HAZARD DATA

| | | | | |
|---|-------|------------------|-----------|-----------|
| Flash Point (Closed Cup Method) | 186°F | Flammable Limits | LEL | UEL |
| | | | 1.21 vol% | 5.35 vol% |
| Extinguishing Media Dry Chemicals, CO ₂ , Universal Type Foam. | | | | |
| Special Firefighting Procedures | | | | |
| Wear full protective equipment including self-contained breathing apparatus. During a fire, HDI vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion. Closed container may explode when exposed to extreme heat or burst when contaminated with water (CO ₂ evolved). | | | | |
| Unusual Fire and Explosion Hazards | | | | |
| Spills of this on hot fibrous insulations may lead to lowering of the autoignition temperatures resulting in possible spontaneous combustion | | | | |

SECTION V - REACTIVITY DATA

| | | | |
|--|----------------|---|---------------------|
| Stability | Unstable | | Conditions to Avoid |
| | Stable | X | |
| Keep containers closed when not in use. Avoid static discharge. Flammable vapors released at elevated temps. | | | |
| Incompatibility (Materials to Avoid) Avoid oxidizers and phosphorus-containing materials. | | | |
| Hazardous Decomposition or Byproducts Fire may yield carbon monoxide and/or carbon dioxide. | | | |
| Hazardous Polymerization | May Occur | X | Conditions to Avoid |
| | Will Not Occur | | |
| Contact with moisture or other materials which react with isocyanates or temperatures above 400F. | | | |

SECTION VI - HEALTH HAZARD DATA

| | | | |
|--------------------|-------------|-------|------------|
| Route(s) of Entry: | Inhalation? | Skin? | Ingestion? |
| | Yes | YES | Yes |

Signs and Symptoms of Exposure Irritation and redness of skin and eyes. Breathing difficulty.

Health Hazards (Acute and Chronic)

ACUTE - prolonged skin exposure can cause irritation, dermatitis. Inhalation of vapors can cause nasal and respiratory irritation, dizziness, headache, nausea.

CHRONIC - prolonged or repeated exposure to vapors may cause lung damage as well as increased sensitivity.

| | | | |
|------------------|------|------------------|-----------------|
| Carcinogenicity: | NTP? | IARC Monographs? | OSHA Regulated? |
| | NO | NO | NO |

Medical Conditions Generally Aggravated by Exposure

Asthma and other respiratory disorders(bronchitis, emphysema, hyperreactivity), skin allergies, eczema.

Emergency and First Aid Procedures

EYES - Flush with water, holding lids open for 15 minutes or more. Call physician for advice if necessary.

Skin - remove contaminate clothing. Clean affected area with mild soap and water. If irritation or redness develops, seek medical attention.

INHALATION- move person away from source of exposure and into fresh air. If person is not breathing, give artificial respiration and seek medical attention immediately. If breathing difficulty develops, give oxygen and seek medical attention immediately.

****NOTE** PERSONS WITH LUNG DISORDERS OR WHO ARE SENSITIZED SHOULD NOT USE THIS PRODUCT.**

SECTION VII - CONTROL MEASURES

Respiratory Protection (Specify Type) Use NIOSH approved respirator as outlined in 30CFR11 and 29CFR 1910.134

effective for solvent and diisocyanate vapors.

| | | | | |
|-------------|---------------|--|---------|-----------------------------------|
| Ventilation | Local Exhaust | Use in confined areas. | Special | Explosion proof fans when needed. |
| | Mechanical | Must be sufficient to maintain area below established TLV/PEL. | | |

| | | | |
|-------------------|-------------------------|----------------|-----------------------|
| Protective Gloves | Neoprene rubber gloves. | Eye Protection | Splash proof goggles. |
|-------------------|-------------------------|----------------|-----------------------|

Other Protective Clothing or Equipment

Use other protective equipment such as rubber aprons and a face shield if danger of splashing is possible.

Eye wash station or clear water must be readily available. ENFORCE GOOD HYGIENE PRACTICES. No smoking or open lights in work area. Exposure to liquid, vapors, mists or fumes must be minimized.

Work/Hygienic Practices Launder contaminated clothing before use. Dispose contaminated leather shoes

SECTION VIII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be Taken in Case Material is Released or Spilled

Shut off and eliminate all ignition sources. Keep people away. Add sand, earth or other absorbent to spill area. Ventilate confined spaces. Open windows and doors, minimize breathing vapors and skin contact. Keep spill out of sewers by diking. Observe precautions for volatile, flammable vapors from absorbed material.

Waste Disposal Method

Incineration in accordance with local, state, and federal regulations.

Precautions to be Taken in Handling and Storing Keep containers tightly closed when not in use and away from excessive heat and flame. DO NOT pressurize, cut, weld, solder, drill or grind the containers.

Other Precautions Store in an OSHA approved area for flammable materials.

Prepared by William H. Greider, Jr. Technical Director

PLEASE

NOTE

"The above information is accurate to the best of our knowledge. However, since data, safety standards, and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, Dur-A-Flex, Inc. MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND use."



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Material Safety Data Sheet

Date Prepared 1/3/2011

| | | | |
|-----------------------------------|--------------------------------|---------------------|---|
| SECTION I - IDENTIFICATION | HAZARD RATING | Health | 3 |
| | 0 = Least | Flammability | 2 |
| | 1 = Slight | Reactivity | 0 |
| | 2 = Moderate | Personal Protection | G |
| 3 = High | | | |
| 4 = Extreme | | | |
| IDENTITY (As Used on Label) | Armor Top Satin Resin | | |
| COMMON NAME | Blocked Cycloaliphatic Diamine | | |

| SECTION II - PRODUCT COMPONENTS | CAS.# | OSHA PEL | ACGIH TLV |
|---------------------------------|-------|----------|-----------|
|---------------------------------|-------|----------|-----------|

| SECTION II - PRODUCT COMPONENTS | CAS.# | OSHA PEL | ACGIH TLV |
|---------------------------------|--------------------------|-------------------|-----------|
| Blocked Cycloaliphatic Diamine | Proprietary ¹ | N.E. ² | N.E. |
| Polypropylene Wax | Proprietary | N.E. | N.E. |
| Dimethyl Ester | Proprietary | N.E. | N.E. |

²None Established

²The manufacturer of the component states that they will provide additional information to a health professional in the event of a medical emergency.

T.S.C.A. Status - O.K. on all above components.
FOR SPILL, LEAK, FIRE, OR ACCIDENT, CALL CHEMTREC 24-HOUR EMERGENCY NUMBER 1-800-424-9300

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

| | | | |
|----------------------------------|---|--------------------------------------|---------|
| Boiling Point | N.E. | Specific Gravity (H2O = 1) | 0.8-0.9 |
| Vapor Pressure (mm Hg) | N.E. | Melting Point | N/A |
| Vapor Density (AIR = 1) | N/A | Evaporation rate (Butyl Acetate = 1) | N/A |
| Volatile Organic Compounds = Nil | | | |
| Solubility in Water | Minimal, Reacts slowly with water | | |
| Appearance and Odor | Pale yellow colored liquid. Amine odor. | | |

SECTION IV - FIRE and EXPLOSION HAZARD DATA

| | | | | |
|---------------------------------|---|------------------|-------|--------|
| Flash Point (Closed Cup Method) | 110°F | Flammable Limits | LEL | UEL |
| | | | 4.22% | 12.87% |
| Extinguishing Media | Dry chemicals, carbon dioxide, foam, water spray. | | | |

Special Firefighting Procedures
 Firefighters should wear full emergency equipment with self-contained breathing apparatus. Irritating gases may be generated by fire.

Unusual Fire and Explosion Hazards Rags or waste soaked with this product and/or solvents, may spontaneously combust if improperly discarded. Prior to disposal, spread out all rags or other waste to dry before disposal.

SECTION V - REACTIVITY DATA

| | | | |
|---------------------------------------|----------------|---|--|
| Stability | Unstable | | Conditions to Avoid |
| | Stable | X | Keep container closed when not in use, protect from moisture. |
| Incompatibility (Materials to Avoid) | | Strong oxidizers, alkaline materials and acids. Avoid moisture prior to use | |
| Hazardous Decomposition or Byproducts | | By Fire- carbon monoxide, carbon dioxide, aldehydes, nitrogen. | |
| Hazardous Polymerization | May Occur | | Conditions to Avoid Decomposition products from hydrolysis in water isophorone diamine and isobutyraldehyde |
| | Will Not Occur | X | |

SECTION VI - HEALTH HAZARD DATA

| | | | |
|--------------------|-------------|-------|------------|
| Route(s) of Entry: | Inhalation? | Skin? | Ingestion? |
| | YES | YES | YES |

Signs and Symptoms of Exposure Irritation on skin.

Health Hazards (Acute and Chronic) Note: Persons with lung disorders or who are sensitized should not use this product.

ACUTE - Irritation on skin and dermatitis. Corrosive

CHRONIC - Repeated overexposure will cause severe skin irritation, dermatitis and sensitization.

Sensitized persons may experience rapid irritation of skin upon exposure.

| | | | |
|------------------|------|------------------|-----------------|
| Carcinogenicity: | NTP? | IARC Monographs? | OSHA Regulated? |
| | NO | NO | NO |

Medical Conditions Generally Aggravated by Exposure
Allergy, skin disorders.

Emergency and First Aid Procedures

EYES - **CORROSIVE**: Flush with water, holding lids open for 15 minutes or more. Call physician for advice if necessary.

SKIN - **CORROSIVE**; PROMPTLY wash with soap and water. DO NOT wash with solvents. Seek medical advice if irritation develops or persists.

INHALATION - Move person to fresh air if effects occur. If needed, give oxygen or artificial respiration to improve breathing. Consult physician.

INGESTION - Get medical attention immediately. Never give liquids to an unconscious or convulsing person.

SECTION VII - CONTROL MEASURES

Respiratory Protection (Specify Type) Provide adequate exhaust ventilation. Use a NIOSH approved respirator as outlined in 42 CFR 84 and 29 CFR 1910.134 effective for solvent and diisocyanate vapors.

| | | | | |
|-------------|---------------|---|---------|-----------------------------------|
| Ventilation | Local Exhaust | Use in confined areas. | Special | Explosion proof fans when needed. |
| | Mechanical | Adequate exhaust ventilation must exhaust AWAY from applicator. | | |

| | | | |
|-------------------|-----------------------------|----------------|--------------------------------|
| Protective Gloves | Natural or Neoprene gloves. | Eye Protection | Splash goggles or face shield. |
|-------------------|-----------------------------|----------------|--------------------------------|

Other Protective Clothing or Equipment

Use rubber apron, face shield and appropriate clothing to prevent contact with skin. Launder contaminated clothing before reuse. Discard contaminated leather shoes and canvas sneakers. Protective skin creams help cleaning with soap and water, gloves must be still be worn. An eye wash station or an adequate supply of clean water must be available at work area.

Work/Hygienic Practices Enforce careful handling to prevent splashing. Wash thoroughly after use.

SECTION VIII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be Taken in Case Material is Released or Spilled

Wear protective equipment to prevent exposure. Stop spill and dike to prevent spreading. Cover spill with absorbent materials and collect into containers. Clean contaminated area with detergent and water or a steam cleaner for best results.

Waste Disposal Method

Dispose in accordance with Federal, State, and Local requirements.

Precautions to be Taken in Handling and Storing

Keep containers tightly closed when not in use.

Other Precautions NONE KNOWN.

Prepared by Samet Dy - Urethane Chemist

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DUR-A-FLEX
INNOVATION FROM THE FLOOR UP

95 Goodwin Street, East Hartford, CT., 06108 (860) 528-9838

Material Safety Data Sheet

Date Prepared 1/3/2011

SECTION I - IDENTIFICATION

IDENTITY (As Used on Label) **Armor Top, Armor Top HH Resin**

COMMON NAME **Blocked Cycloaliphatic Diamine**

HAZARD RATING

0 = Least
1 = Slight
2 = Moderate
3 = High
4 = Extreme

Health

3

Flammability

1

Reactivity

0

Personal Protection

G

SECTION II - PRODUCT COMPONENTS

CAS.#

OSHA PEL

ACGIH TLV

Blocked Cycloaliphatic Diamine

Proprietary²

N.E.¹

N.E.

¹None Established

²The manufacturer of the component states that they will provide additional information to a health professional in the event of a medical emergency.

T.S.C.A. Status - O.K. on all above components.

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SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

| | | | |
|-------------------------|------|---|---------|
| Boiling Point | N.E. | Specific Gravity (H ₂ O = 1) | 0.8-0.9 |
| Vapor Pressure (mm Hg) | N.E. | Melting Point | N/A |
| Vapor Density (AIR = 1) | N/A | Evaporation rate (Butyl Acetate = 1) | N/A |

Volatile Organic Compounds = Nil

Solubility in Water Minimal, Reacts slowly with water

Appearance and Odor Pale yellow colored liquid. Amine odor.

SECTION IV - FIRE and EXPLOSION HAZARD DATA

| | | | | |
|---------------------------------|-------|------------------|-----|-----|
| Flash Point (Closed Cup Method) | 171°F | Flammable Limits | LEL | UEL |
| | | | N/A | N/A |

Extinguishing Media Dry chemicals, carbon dioxide, foam, water spray.

Special Firefighting Procedures

Firefighters should wear full emergency equipment with self-contained breathing apparatus. Irritating gases may be generated by fire.

Unusual Fire and Explosion Hazards Rags or waste soaked with this product and/or solvents, may spontaneously combust if improperly discarded. Prior to disposal, spread out all rags or other waste to dry before disposal.

SECTION V - REACTIVITY DATA

| | | | |
|---------------------------------------|----------------|---|--|
| Stability | Unstable | | Conditions to Avoid |
| | Stable | X | Keep container closed when not in use, protect from moisture. |
| Incompatibility (Materials to Avoid) | | Strong oxidizers, alkaline materials and acids. Avoid moisture prior to use | |
| Hazardous Decomposition or Byproducts | | By Fire- carbon monoxide, carbon dioxide, aldehydes, nitrogen. | |
| Hazardous Polymerization | May Occur | | Conditions to Avoid Decomposition products from hydrolysis in water isophorone diamine and isobutylaldehyde |
| | Will Not Occur | X | |

SECTION VI - HEALTH HAZARD DATA

| | | | |
|--------------------|-------------|-------|------------|
| Route(s) of Entry: | Inhalation? | Skin? | Ingestion? |
| | YES | YES | YES |

Signs and Symptoms of Exposure Irritation on skin.

Health Hazards (Acute and Chronic) Note: Persons with lung disorders or who are sensitized should not use this product.

ACUTE - Irritation on skin and dermatitis. Corrosive

CHRONIC - Repeated overexposure will cause severe skin irritation, dermatitis and sensitization.

Sensitized persons may experience rapid irritation of skin upon exposure.

| | | | |
|------------------|------|------------------|-----------------|
| Carcinogenicity: | NTP? | IARC Monographs? | OSHA Regulated? |
| | NO | NO | NO |

Medical Conditions Generally Aggravated by Exposure
Allergy, skin disorders.

Emergency and First Aid Procedures

EYES - **CORROSIVE**: Flush with water, holding lids open for 15 minutes or more. Call physician for advice if necessary.

SKIN - **CORROSIVE**; PROMPTLY wash with soap and water. DO NOT wash with solvents. Seek medical advice if irritation develops or persists.

INHALATION - Move person to fresh air if effects occur. If needed, give oxygen or artificial respiration to improve breathing. Consult physician.

INGESTION - Get medical attention immediately. Never give liquids to an unconscious or convulsing person.

SECTION VII - CONTROL MEASURES

Respiratory Protection (Specify Type) Provide adequate exhaust ventilation. Use a NIOSH approved respirator as outlined in 42 CFR 84 and 29 CFR 1910.134 effective for solvent and diisocyanate vapors.

| | | | | |
|-------------|---------------|---|---------|-----------------------------------|
| Ventilation | Local Exhaust | Use in confined areas. | Special | Explosion proof fans when needed. |
| | Mechanical | Adequate exhaust ventilation must exhaust AWAY from applicator. | | |

| | | | |
|-------------------|-----------------------------|----------------|--------------------------------|
| Protective Gloves | Natural or Neoprene gloves. | Eye Protection | Splash goggles or face shield. |
|-------------------|-----------------------------|----------------|--------------------------------|

Other Protective Clothing or Equipment

Use rubber apron, face shield and appropriate clothing to prevent contact with skin. Launder contaminated clothing before reuse. Protective skin creams help cleaning with soap and water, gloves must be still be worn. An eye wash station or an adequate supply of clean water must be available at work area.

Work/Hygienic Practices Enforce careful handling to prevent splashing. Wash thoroughly after use.

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Steps to be Taken in Case Material is Released or Spilled

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Waste Disposal Method

Dispose in accordance with Federal, State, and Local requirements.

Precautions to be Taken in Handling and Storing

Keep containers tightly closed when not in use.

Other Precautions NONE KNOWN.

Prepared by Samet Dy - Urethane Chemist

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INNOVATION FROM THE FLOOR UP

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Material Safety Data Sheet

Date Prepared 12/17/2010

SECTION I - IDENTIFICATION

IDENTITY (As Used on Label) **Armor Top Grit**

COMMON NAME WHITE ALUMINUM OXIDE

| | | |
|---|---------------------|---|
| HAZARD RATING 0 = Least 1 = Slight 2 = Moderate 3 = High 4 = Extreme | Health | 0 |
| | Flammability | 0 |
| | Reactivity | 0 |
| | Personal Protection | G |

SECTION II - PRODUCT COMPONENTS

| | CAS.# | OSHA PEL | ACGIH TLV |
|----------------|-----------|----------------------------|----------------------|
| Aluminum Oxide | 1344-28-1 | 5 mg/m ³ (resp) | 10 mg/m ³ |

Other Oxides (Total) (SiO₂+Fe₂O₃+Na₂O+MgO+TiO₂)=1%

T.S.C.A. Status - O.K. on above component.

FOR SPILL, LEAK, FIRE, OR ACCIDENT, CALL CHEMTREC 24-HOUR EMERGENCY NUMBER 1-800-424-9300

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

| | | | |
|-------------------------|-----|---|------|
| Boiling Point | N/A | Specific Gravity (H ₂ O = 1) | 3.95 |
| Vapor Pressure (mm Hg) | N/A | Melting Point | 2070 |
| Vapor Density (AIR = 1) | N/A | Evaporation rate (Butyl Acetate = 1) | N/A |

Volatile Organic Compounds (VOC) = Zero grams/liter

Solubility in Water INSOLUBLE

Appearance and Odor Granular, White, Odorless

SECTION IV - FIRE and EXPLOSION HAZARD DATA

| | | | | |
|---------------------------------|-----|------------------|-----|-----|
| Flash Point (Closed Cup Method) | N/A | Flammable Limits | LEL | UEL |
| | | | N/A | N/A |

Extinguishing Media N/A

Special Firefighting Procedures

None Known.

Unusual Fire and Explosion Hazards

None Known.

SECTION V - REACTIVITY DATA

| | | | |
|-----------|----------|---|---------------------|
| Stability | Unstable | | Conditions to Avoid |
| | Stable | X | |

Incompatibility (Materials to Avoid) None known.

Hazardous Decomposition or Byproducts None Known.

| | | | |
|--------------------------|----------------|---|---------------------|
| Hazardous Polymerization | May Occur | | Conditions to Avoid |
| | Will Not Occur | X | |

SECTION VI - HEALTH HAZARD DATA

| | | | |
|--------------------|-------------|-------|------------|
| Route(s) of Entry: | Inhalation? | Skin? | Ingestion? |
| | Yes | | Eyes |

| | |
|--------------------------------|----------------------------------|
| Signs and Symptoms of Exposure | Temporary Inhalation Discomfort. |
|--------------------------------|----------------------------------|

Health Hazards (Acute and Chronic)

ACUTE - None known other than possible temporary discomfort due to inhalation of dust concentration.

CHRONIC - Potential chronic respiratory distress/irritation. Can aggravate pre-existing lung conditions.

| | | | |
|------------------|------|------------------|-----------------|
| Carcinogenicity: | NTP? | IARC Monographs? | OSHA Regulated? |
| | NO | NO | NO |

Medical Conditions Generally Aggravated by Exposure
None Known.

Emergency and First Aid Procedures

EYES - hold eyes apart and flush with clean water for 15 minutes. If irritation or redness develops and persists seek medical attention.

INHALATION - For inhalation discomfort move person to fresh air.

SECTION VII - CONTROL MEASURES

Respiratory Protection (Specify Type)

Provide adequate exhaust ventilation; use a NIOSH - approved respirator if PELS/TLVS are exceeded.

| | | | | |
|-------------|---------------|---------------------------------|---------|------------|
| Ventilation | Local Exhaust | If necessary. | Special | None Known |
| | Mechanical | Adequate for dusty environments | | |

| | | | |
|-------------------|-------------|----------------|---|
| Protective Gloves | Wear gloves | Eye Protection | Safety goggles, do not wear contact lenses. |
|-------------------|-------------|----------------|---|

Other Protective Clothing or Equipment

NONE KNOWN.

Work/Hygienic Practices Avoid unnecessary formation of dust.

SECTION VIII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be Taken in Case Material is Released or Spilled

Non - Skid Grit may be swept or vacuumed for normal disposal.

Waste Disposal Method

Non - Skid Grit is not a hazardous waste under U.S. Federal RCRA regulations.

Precautions to be Taken in Handling and Storing

Same as given in Section VII (ventilation, gloves, and goggles.)

Other Precautions Dry powders can build static charges when subjected to friction.

Prepared by William H. Greider, Jr. Technical Director

**PLEASE
NOTE**

"The above information is accurate to the best of our knowledge. However, since data, safety standards, and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, Dur-A-Flex, Inc. MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND use."