

## Armor-Stat ESD Topcoat Resin SAFETY DATA SHEET

**1. IDENTIFICATION**

**Product Identifier:** Armor-Stat ESD Topcoat Resin

**Recommended use:** Floor Surfacing

**Manufacturer Name:** Dur-A-Flex, Inc.  
95 Goodwin Street  
East Hartford, CT 06108

**Telephone number:** 860-528-9838

**Emergency phone number:** 1-800- 424-9300 (CHEMTREC)

**Date of Preparation:** February 18, 2015

**2. HAZARD(S) IDENTIFICATION**

This product is one part of a 4 part product. Read and understand the hazard information on the SDS for Armor-Stat Hardener, Armor-Stat Powder and Armor-Stat Grit before using this product.

**Classification:**

Physical	Health
Flammable Liquid Category 4	Skin Corrosion Category 1C Eye Damage Category 1 Skin Sensitization Category 1 Toxic to Reproduction Category 1B

**Labeling:**

**Danger!**



**Hazard statement(s)**

Combustible liquid.  
Causes severe skin burns and eye damage.  
May cause an allergic skin reaction.  
May damage the unborn child.

**Precautionary statement(s)**

Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Keep away from flames and hot surfaces. No smoking.  
Do not breathe vapors, spray or mists.  
Wash thoroughly after handling.  
Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves, protective clothing, eye protection and face protection.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with soap and water.  
Immediately call a POISON CENTER or doctor.  
Wash contaminated clothing before reuse.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Immediately call a POISON CENTER or doctor.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
Immediately call a POISON CENTER or doctor.  
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor.  
IF exposed or concerned: Get medical attention.  
In case of fire: Use water spray, foam, carbon dioxide or dry chemical to extinguish.  
Store in a well-ventilated place. Keep cool.  
Store locked up.  
Dispose of contents and container in accordance with local and national regulations.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Concentration
Dimethyl Carbonate	616-38-6	30-60%
Blocked Cycloaliphatic Diamine	Proprietary	10-40%
Propylene Carbonate	108-32-7	10-30%
Titanium Dioxide*	13463-67-7	10-20%
Dipropylene Glycol Monomethyl Ether Acetate	88917-22-0	1-10%
1-Methoxy-2-propanol acetate	108-65-6	0-5%
1 Methyl-2-Pyrrolidone	872-50-4	0.1-0.5%
Carbon Black*	1333-86-4	0-0.5%

\*The titanium dioxide and carbon black in this product is inextricably bound in a manner that no exposure occurs during normal use and handling. Therefore this product is not classified as a carcinogen.

**The specific identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.**

### 4. FIRST-AID MEASURES

**Inhalation:** Immediately remove victim to fresh air. If breathing is difficult have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration. Get immediate medical attention.  
**Skin contact:** Immediately flush skin with plenty of soap and water for 15 minutes while removing contaminated clothing and shoes. Get immediate medical attention. Launder clothing before re-use. (Discard contaminated shoes).  
**Eye contact:** Immediately flush victim's eyes with large quantities of water for at least 15 minutes, holding the eyelids apart. Get immediate medical attention.

**Ingestion:** If conscious, rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious or convulsing person. Get immediate medical attention.

**Most important symptoms/effects, acute and delayed:** Corrosive to eye and skin. May cause severe irritation or burns to mucous membranes and upper respiratory tract. Ingestion may cause burns to the mouth, throat and stomach.

**Indication of immediate medical attention and special treatment, if necessary:** Get immediate medical attention for all routes of exposure.

## 5. FIRE-FIGHTING MEASURES

**Suitable (and unsuitable) extinguishing media:** Use water spray, foam, carbon dioxide or dry chemical. Do not use water jet. Cool fire exposed containers with water.

**Specific hazards arising from the chemical:** Runoff from fire may be corrosive. Containers contaminated with water may rupture explosively.

**Special protective equipment and precautions for fire-fighters:** Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment, and emergency procedures:** Evacuate the area and ventilate the area. Remove all ignition sources. Wear appropriate protective clothing as described in Section 8.

**Environmental precautions:** Do not allow spilled material or wash water to enter sewers, surface water or ground water. Report releases as required by local, state and federal authorities.

**Methods and materials for containment and cleaning up:** Contain and collect with an inert absorbent. Place into an appropriate container for disposal.

## 7. HANDLING AND STORAGE

**Precautions for safe handling:** Prevent contact with eyes, skin and clothing. Do not breathe vapors or mists. Do not taste or swallow. Wash thoroughly after handling and before eating, drinking, smoking or using the toilet. Use only with adequate ventilation.

**Conditions for safe storage, including any incompatibilities:** Store in a cool, dry and well-ventilated place. Keep away from heat, sparks and flames. Store in original containers. Keep away from moisture and water. Protect from physical damage. Store away from oxidizing agents and other incompatible materials.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure guidelines:

Dimethyl Carbonate	None Established
Blocked Cycloaliphatic Diamine	None Established
Propylene Carbonate	None Established
Titanium Dioxide	15 mg/m <sup>3</sup> TWA OSHA PEL

	10 mg/m <sup>3</sup> TWA ACGIH TLV
Dipropylene Glycol Monomethyl Ether Acetate	None Established
1-Methoxy-2-propanol acetate	50 ppm AIHA WEEL
1 Methyl-2-Pyrrolidone	10 ppm AIHA WEEL
Carbon Black	3.5 mg/m <sup>3</sup> TWA OSHA PEL 3 mg/m <sup>3</sup> TWA ACGIH TLV (inhalable)

**Appropriate engineering controls:** Use with adequate general or local exhaust ventilation to minimize exposures levels.

**Personal Protective Equipment:**

**Respiratory protection:** If the exposures are excessive, a NIOSH approved respirator with an organic vapor cartridge and a dust/mist prefilter or supplied air respirator is recommended. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice.

**Skin protection:** Wear impervious gloves such as nitrile rubber, butyl rubber or neoprene.

**Eye protection:** Chemical safety goggles and faceshield should be worn to prevent contact.

**Other:** Impervious clothing such as long sleeved shirt and pants, rubber apron and rubber boots should be worn if contact is possible. An eye wash and safety shower should be available in the immediate work area.

<b>9. PHYSICAL AND CHEMICAL PROPERTIES</b>
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**Appearance (physical state, color, etc.):** Colored liquid

**Odor:** Amine odor

<b>Odor threshold:</b> Not available	<b>pH:</b> Not available
<b>Melting Point/Freezing Point:</b> - Not available	<b>Boiling Point:</b> Not available
<b>Flash point:</b> 171°F / 77°C	<b>Evaporation rate:</b> Not available
<b>Flammability (solid, gas):</b> Not applicable	
<b>Flammable limits: LEL:</b> Not available	<b>UEL:</b> Not available
<b>Vapor pressure:</b> Not available	<b>Vapor density:</b> Not available
<b>Relative density:</b> 1.4-1.5	<b>Solubility(is):</b> Negligible
<b>Partition coefficient: n-Octanol/water:</b> Not applicable	<b>Auto-ignition temperature:</b> Not available
<b>Decomposition temperature:</b> Not available	<b>Viscosity:</b> Not available

<b>10. STABILITY AND REACTIVITY</b>
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**Reactivity:** Not reactive under normal use conditions.

**Chemical stability:** Stable

**Possibility of hazardous reactions:** Contact with moisture or water may product aliphatic amines and highly flammable vapors.

**Conditions to avoid:** Avoid moisture and excessive humidity.

**Incompatible materials:** Avoid contact with oxidizing agents, alkaline earth metals and acid.

**Hazardous decomposition products:** Thermal decomposition may produce carbon and nitrogen oxides and traces of hydrogen cyanide.

## 11. TOXICOLOGICAL INFORMATION

**Inhalation:** Inhalation of mists may cause severe irritation of the nose throat and upper respiratory tract. Severe exposures may cause pulmonary edema.

**Ingestion:** Swallowing may cause irritation or burns to the mouth, throat and stomach, with nausea, vomiting and diarrhea. Aspiration during ingestion or vomiting may cause chemical pneumonia.

**Skin contact:** Liquid or mists may cause severe irritation and burns. May cause allergic skin reaction.

**Eye contact:** Corrosive. Liquid or mists may cause severe irritation or burns with redness, tearing and stinging of the eyes. May cause permanent eye damage.

**Chronic effects from short- and long-term exposure:** None known.

**Reproductive Toxicity:** 1-Methyl-2-pyrrolidone has been shown to cause developmental effects in studies with laboratory animals.

**Sensitization:** Blocked cycloaliphatic diamine has been shown to cause sensitization in a guinea pig maximization test

**Mutagenicity:** None of the components have been shown to cause mutagenic activity.

**Carcinogenicity:** Titanium dioxide is listed by IARC as a group 2B carcinogen (possible human carcinogen). Carbon black is listed by IARC as a group 2B carcinogen (possibly carcinogenic to humans), and by ACGIH as an A3 (confirmed animal carcinogen with unknown relevance to humans). These components are encapsulated in a polymer matrix so no inhalable exposure occurs during use or disposal. None of the other components >0.1 are listed by OSHA, IARC, NTP or ACGIH as a carcinogen.

### Acute Toxicity Values:

Dimethyl Carbonate: Oral rat LD50 6 g/kg; Dermal rat LD50 >2500 mg/kg; Inhalation rat LC50 >140 mg/L/4 hr.

Blocked Cycloaliphatic Diamine: Oral rat LD50 4150 mg/kg; Dermal rat LD50 >5000 mg/kg; Inhalation rat LC50 1.276 mg/L

Propylene Carbonate: Oral rat LD50 > 5000 mg/kg; Dermal rabbit LD50 >2000 mg/kg.

Titanium Dioxide: Oral rat LD50 >5000 mg/kg, Inhalation rat LC50 >6.82 mg/L/4 hr

Dipropylene Glycol Methyl Ether Acetate: Oral rat LD50 > 5000 mg/kg; Dermal rabbit LD50 >2000 mg/kg

1-Methyl-2-Pyrrolidone: Oral rat LD50 4150 mg/kg, Inhalation rat LC50 > 5.1 mg/L/4 hr, Dermal rabbit LD50 > 5000 mg/kg

Carbon Black: Oral rat LD50 > 8000 mg/kg, Inhalation rat LC50 > 4.6 mg/m<sup>3</sup>/4 hr.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity:

Dimethyl Carbonate: No data available

Blocked Cycloaliphatic Diamine: 96 hr LC50 Danio rerio > 69.2 mg/L; 48 hr EC50 30.7 mg/L; 72 hr EC50

Desmodesmus subspicatus 257.5 mg/L

Propylene Carbonate: 96 hr LC50 Cyprinus carpio > 1000 mg/L; 48 hr EC50 daphnia magna > 1000 mg/L; 72 hr EC50 desmodesmus subspicatus > 900 mg/L

Titanium Dioxide: 96 hr LC50 Pimephales promelas >1000 mg/L, 48 hr EC50 daphnia magna >1000 mg/L, 72 hr EC50 Pseudokirchneriella subcapitata 61 mg/L

Dipropylene Glycol Methyl Ether Acetate: 96 hr LC50 Pimephales promelas 151 mg/kg, 48 hr EC50 daphnia magna 2701 mg/L, 72 hr EC50 Selenastrum capricornutum > 1,000 mg/L

1-Methyl-2-Pyrrolidone: 96 hr LC50 Oncorhynchus mykiss >500 mg/L, 24 hr EC50 >1000 mg/L, 72 hr EC50  
Desmodesmus subspicatus > 500 mg/L  
Carbon Black: 96 hr LC0 Danio rerio 1000 mg/L, 24 hr EC50 daphnia magna > 5600 mg/L, EC50  
Desmodesmus subspicatus > 10000 mg/L

**Persistence and degradability:** Dimethyl carbonate and propylene carbonate are readily biodegradable.  
Blocked cycloaliphatic diamine is not readily biodegradable.

**Bioaccumulative potential:** Dimethyl carbonate, propylene carbonate have a BCF of 3. Dipropylene glycol methyl ether acetate has a BCF of <100.

**Mobility in soil:** Dimethyl carbonate, propylene carbonate and dipropylene glycol methyl ether acetate are highly mobile in soil.

**Other adverse effects:** None known.

<b>13. DISPOSAL CONSIDERATIONS</b>
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Dispose in accordance with all local, state and federal regulations.

<b>14. TRANSPORT INFORMATION</b>
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	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
<b>DOT</b>	UN 2735	Amines, Liquid, Corrosive, n.o.s. (Cycloaliphatic Diamine)	8	PG III	None
<b>TDG</b>	UN 2735	Amines, Liquid, Corrosive, n.o.s. (Cycloaliphatic Diamine)	8	PG III	None
<b>IMDG</b>	UN 2735	Amines, Liquid, Corrosive, n.o.s. (Cycloaliphatic Diamine)	8	PG III	None
<b>IATA</b>	UN 2735	Amines, Liquid, Corrosive, n.o.s. (Cycloaliphatic Diamine)	8	PG III	None

\*This product qualifies for “Limited Quantity” for any package less than 1.3 gallons.

**Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Not applicable – product is transported only in packaged form.

**Special precautions:**

<b>15. REGULATORY INFORMATION</b>
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**CERCLA:** This product is not subject to CERCLA reporting requirements as it is sold. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

**SARA Hazard Category (311/312):** Acute Health, Chronic Health, Fire Hazard

**SARA 313 Information: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372):**

1-Methyl-2-Pyrrolidone                      0.1-1%                      872-50-4

**California Proposition 65**

This product contains the following chemicals known to the State of California to cause cancer or reproductive toxicity (birth defects):

1-Methyl-2-Pyrrolidone                      0.1-1%                      872-50-4                      developmental

**EPA TSCA Inventory:** All of the ingredients in this product are listed on the EPA TSCA Inventory.

**CANADA:**

**Canadian WHMIS Classification:** Class B Division 3 (Combustible Liquid); Class D Division 2 Subdivision A (Very toxic material causing other chronic effects); Class E (Corrosive)

This product has been classified under the CPR and this SDS discloses information elements required by the CPR.

**16. OTHER INFORMATION**

**NFPA Rating:** Health = 3      Flammability = 2      Instability = 0  
**HMIS Rating:** Health = 3      Flammability = 2      Physical Hazard = 0

**SDS Revision History:** Converted to GHS format. All sections revised.  
**Date of preparation:** February 18, 2015  
**Date of last revision:** New SDS

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.