Cryl-A-Prime P101
SAFETY DATA SHEET

1. IDENTIFICATION

Product Identifier: Cryl-A-Prime P101

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: July 17, 2014

2. HAZARD(S) IDENTIFICATION

Classification:

Physical	Health
Flammable Liquid Category 2	Skin Irritation Category 2 Skin Sensitization Category 1 Specific Target Organ Toxicity Single Exposure Category 3 (Respiratory Irritation) Carcinogen Category 2

Labeling:

Danger!

Hazard statement(s)

Highly flammable liquid and vapor.
Causes skin irritation
May cause an allergic skin reaction
May cause respiratory irritation.
Suspected of causing cancer.

Precautionary statement(s)

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, sparks, open flames, and hot surfaces.
No smoking.
Keep container tightly closed.
Ground and bond container and receiving equipment
Use explosion-proof electrical, ventilating and lighting equipment.
Use only non-sparking tools.

Take precautionary measures against static discharge.
Avoid breathing mist, vapors or spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves, eye protection and face protection.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical attention.
Wash contaminated clothing before reuse.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor if you feel unwell.
IF exposed or concerned: Get medical attention.
In case of fire: Use water spray, carbon dioxide and foam to extinguish.
Store in a well-ventilated place. Keep cool. Keep container tightly closed.
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
Methyl Methacrylate	80-62-6	60-80%
Acrylic Copolymer Resin	Proprietary	20-50%
Triethylene Glycol Dimethacrylate	109-16-0	1-5%
N,N-Dimethyl-p-toluidine	99-97-8	1-5%

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

4. FIRST-AID MEASURES

Inhalation: Remove victim to fresh air. If breathing is difficult, have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration. Get medical attention**.**
Skin contact: Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation or other symptoms develop, get medical attention. Launder clothing before re-use.
Eye contact: Flush with large quantities of water for several minutes, holding the eyelids apart. Get medical attention if irritation persists.
Ingestion: If conscious, rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious or convulsing person. Get medical attention.

Most important symptoms/effects, acute and delayed: May cause respiratory tract, eye and skin irritation. Prolonged or repeated contact may cause allergic skin reaction (skin sensitization). May cause cancer based on animals data.

Indication of immediate medical attention and special treatment, if necessary: If skin irritation or sensitization occurs, discontinue use and get medical attention.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media: Use water spray, carbon dioxide or dry chemical. Cool fire exposed containers with water.

Specific hazards arising from the chemical: Vapors are heavier than air and may travel to ignition source and flash back. Heat of fire may cause an exothermic auto polymerization reaction. Emits toxic fumes under fire conditions. Closed containers may explode due to pressure build up when exposed to extreme heat.

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: Provide explosion-proof ventilation. Avoid contact with skin, eyes or clothing. Avoid breathing vapors. Wear appropriate protective clothing as described in Section 8. Eliminate all ignition sources.

Environmental precautions: Avoid release to the environment. 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: Avoid contact with eyes, skin, and clothing. Avoid breathing vapors or mist. Wash thoroughly after handling. Wear protective clothing and equipment as described in Section 8. Use with adequate ventilation. Ground container when pouring. Keep away from heat, sparks, flames and all sources of ignition. Do not expose to direct sunlight. Empty containers retain product residues and can be hazardous. Follow all SDS precautions when handling empty containers.

Conditions for safe storage, including any incompatibilities: Store in a cool, dry, well ventilated area. Keep container tightly closed when not in use. Do not store in direct sunlight. Prevent moisture contact. Protect from physical damage. Keep away from oxidizers and other incompatible materials.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines:

Methyl Methacrylate	100 ppm TWA OSHA PEL 50 ppm TWA ACGIH TLV 100 ppm ACGIH TLV STEL
Acrylic Copolymer Resin	None Established
Triethylene Glycol Dimethacrylate	None Established
N,N-Dimethyl-p-toluidine	0.5 ppm TWA AIHA WEEL

Appropriate engineering controls: Use with adequate general or local exhaust ventilation to maintain exposures below occupational exposure limits. Use explosion-proof equipment where required.

Personal Protective Equipment:
Respiratory protection: None required with adequate ventilation. An approved air-purifying respirator with an organic vapor cartridge may be permissible under certain limited circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection. Selection and use of respiratory equipment must be in accordance with appropriate regulations and good industrial hygiene practice.
Skin protection: Wear impervious gloves such as nitrile rubber or other impervious gloves.
Eye protection: Wear safety chemical goggles when the possibility exists for eye contact due to splashing or spraying material.
Other: Wear impervious clothing if needed to prevent any contact with this product, such as gloves, apron, boots, or whole body suit.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.): Moderately turbid fluid with a sweet ester odor
Odor: Sweet ester odor

Odor threshold: Not available	**pH:** Not available
Melting Point/Freezing Point: Not available	**Boiling Point:** 212°F / 100°C
Flash point: 50 °F / 10°C (Setaflash)	**Evaporation rate:** >1 (butyl acetate = 1)
Flammability (solid, gas): Not applicable	
Flammable limits: LEL: 2.1% (Methyl Methacrylate)	**UEL:** 12.5% (Methyl Methacrylate)
Vapor pressure: 35 mmHg @ 20°C (Methyl Methacrylate)	**Vapor density:** >1
Relative density: ~1	**Solubility(is):** 16 g/L (in water)
Partition coefficient: n-Octanol/water: Not applicable	**Auto-ignition temperature:** >500°F / 260°C (Methyl Methacrylate)
Decomposition temperature: Not available	**Viscosity:** Not available

10. STABILITY AND REACTIVITY

Reactivity: Polymerization can occur.
Chemical stability: Stable when stabilized. The product is unstable at elevated temperatures and pressures.
Possibility of hazardous reactions: Methyl methacrylate can undergo hazardous polymerization if exposed to excessive heat, peroxides and polymerization catalysts.
Conditions to avoid: Avoid heat, sparks and open flames.
Incompatible materials: Avoid contact with oxidizing agents, reducing agents, peroxides and polymerization catalysts.
Hazardous decomposition products: Thermal decomposition may produce carbon oxides, toxic fumes and hydrocarbons.

11. TOXICOLOGICAL INFORMATION

Inhalation: May cause respiratory tract irritation with coughing, mucous production and shortness of breath. Methyl methacrylate has been shown to cause irritation of the upper respiratory tract in studies with laboratory animals.
Ingestion: Swallowing may cause gastrointestinal irritation, nausea and diarrhea.
Skin contact: Causes skin irritation. Methyl methacrylate has been shown to cause severe irritation when tested undiluted on rabbit skin. Causes skin sensitization. Cases of contact dermatitis has been reported in workers exposed to methyl methacrylate.
Eye contact: May cause eye irritation. Methyl methacrylate has been shown to cause mild irritation to the conjunctiva in animal studies.

Chronic effects from short- and long-term exposure: In subchronic inhalation studies with methyl methacrylate, systemic toxic effects were seen in rats to the liver, kidney, brain, spleen and bone marrow >1000 ppm. Oral administration of methyl methacrylate to rats resulted in a NOAEL of 200 mg/kg.

Reproductive Toxicity: This product is not expected to cause adverse reproductive or developmental effects. Methyl methacrylate did not cause reproductive effects on male fertility when animals were exposed to 9000 ppm. No teratogenicity, embryotoxicity or fetotoxicity has been observed at exposure levels up to and including 2028 ppm

Sensitization: Methyl methacrylate and triethylene glycol dimethylacrylate have been shown to cause sensitization in a mouse local lymphnode assays.

Mutagenicity: Methyl methacrylate was negative in sister chromatid exchange assay in mammalian cells and in a vivo chromosome aberration assay.

Carcinogenicity: None of the components are listed as a carcinogen by IARC, NTP, ACGIH or OSHA.
In a 2 year NTP carcinogenicity study N,N-dimethyl-p-toluidine was administered by gavage to male and female mice and rats. Results included increased incidences of nonneoplastic lesions of the liver and nasal cavity in male and female rats and mice; the kidney in male and female rats; the spleen and bone marrow in male and female rats and female mice; the lung in male and female mice; the forestomach in male rats and female mice; the mesenteric lymph node in male rats and female mice; and the olfactory lobe in male and female mice.

Acute Toxicity Values: No toxicity data for the product. Acute Toxicity Estimate: Oral rat LD50 6174 mg/kg
Methyl Methacrylate: Oral rat LD50 7800 mg/kg; Inhalation rat LC50 3750 mg/L/8 hr; Dermal rabbit LD60 >5000 mg/kg
Acrylic Copolymer Resin: No toxicity data available
Triethylene Glycol Dimethacrylate: Dermal rabbit LD50 > 2000 mg/kg
N,N-Dimethyl-p-toluidine: Oral rat LD50 139 mg/kg; Inhalation rat LC50 1400 mg/m3/4 hr; Dermal rabbit LD50 > 2000 mg/kg;.;

12. ECOLOGICAL INFORMATION

Ecotoxicity:
Methyl Methacrylate: 96 hr LC50 Pimephales promelas 130 mg/L; 24 hr LC50 daphnia magna 1760 mg/L
Acrylic Copolymer Resin: No data available
Triethylene Glycol Dimethacrylate: 96 hr LC50 Danio rerio 16.4 mg/L; 72 hr EC50 Pseudokirchnerella subcapitata > 100 mg/L
N,N-Dimethyl-p-toluidine: 96 hr LC50 Pimephales promelas 46 mg/L; 48 hr daphnia magna 15.259 mg/L; 72 hr EC50 Pseudokirchneriella subcapitata 24.37002 mg/L

Persistence and degradability: Methyl methacrylate, N,N-dimethyl-p-toluidine and triethylene glycol dimethacrylate are readily biodegradable.
Bioaccumulative potential: Methyl methacrylate has a BCF of 2.97.
Mobility in soil: Methyl methacrylate has a high mobility in soil.
Other adverse effects: None known.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all local, state and federal regulations.

14. TRANSPORT INFORMATION

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
DOT	UN1247	Methyl Methacrylate Monomer, Stabilized	3	II	None
TDG	UN1247	Methyl Methacrylate Monomer, Stabilized	3	II	None
IMDG	UN1247	Methyl Methacrylate Monomer, Stabilized	3	II	None
IATA	UN1247	Methyl Methacrylate Monomer, Stabilized	3	II	None

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: None known

15. REGULATORY INFORMATION

CERCLA: This product has a Reportable Quantity (RQ) of 1250 lbs. (based on the RQ for Methyl Methacrylate of 1000 lbs). Releases above the RQ must be reported to the National Response Center. 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, Reactive 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):

Methyl Methacrylate	80-62-6	60-80%

California Proposition 65
This product contains the following chemicals known to the State of California to cause cancer or reproductive toxicity (birth defects):

N,N-Dimethyl-p-toluidine	99-97-8	1-5%	Cancer

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

CANADA:
Canadian WHMIS Classification: Class B-2 (Flammable Liquid) Class D Division 2 Subdivision B (Toxic Material Causing other Toxic Effects)
This product has been classified under the CPR and this MSDS discloses information elements required by the CPR.

16. OTHER INFORMATION

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

SDS Revision History: Converted to GHS format. All sections revised.
Date of preparation: July 17, 2014
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.

Cryl-A-Glaze G201 & G202
SAFETY DATA SHEET

1. IDENTIFICATION

Product Identifier: Cryl-A-Glaze G201, Cryl-A-Glaze G202

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: July 13, 2014

2. HAZARD(S) IDENTIFICATION

Classification:

Physical	Health
Flammable Liquid Category 2	Skin Irritation Category 2 Skin Sensitization Category 1 Specific Target Organ Toxicity Single Exposure Category 3 (Respiratory Irritation) Specific Target Organ Toxicity Repeat Exposure Category 2 Carcinogen Category 2

Labeling:

Danger!

Hazard statement(s)

Highly flammable liquid and vapor.
Causes skin irritation
May cause an allergic skin reaction
May cause respiratory irritation.
May cause damage to kidneys through prolonged or repeated exposure.
Suspected of causing cancer.

Precautionary statement(s)

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, sparks, open flames, and hot surfaces.
No smoking.
Keep container tightly closed.
Ground and bond container and receiving equipment
Use explosion-proof electrical, ventilating and lighting equipment.

Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe mist, vapors or spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves, eye protection and face protection.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical attention.
Wash contaminated clothing before reuse.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor if you feel unwell.
IF exposed or concerned: Get medical attention.
In case of fire: Use water spray, carbon dioxide and foam to extinguish.
Store in a well-ventilated place. Keep cool. Keep container tightly closed.
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
Methyl Methacrylate	80-62-6	40-60%
Acrylic Copolymer Resin	Proprietary	20-40%
Dibutyl Maleate	105-76-0	10-20%
Triethylene Glycol Dimethacrylate	109-16-0	1-5%
N,N-Dimethyl-p-toluidine	99-97-8	0.1-1%

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

4. FIRST-AID MEASURES

Inhalation: Remove victim to fresh air. If breathing is difficult, have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration. Get medical attention**.**
Skin contact: Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation or other symptoms develop, get medical attention. Launder clothing before re-use.
Eye contact: Flush with large quantities of water for several minutes, holding the eyelids apart. Get medical attention if irritation persists.
Ingestion: If conscious, rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious or convulsing person. Get medical attention.

Most important symptoms/effects, acute and delayed: May cause respiratory tract, eye and skin irritation. Prolonged or repeated contact may cause allergic skin reaction (skin sensitization). Prolonged overexposure may cause kidney damage. May cause cancer based on animals data.

Indication of immediate medical attention and special treatment, if necessary: If skin irritation or sensitization occurs, discontinue use and get medical attention.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media: Use water spray, carbon dioxide or dry chemical. Cool fire exposed containers with water.

Specific hazards arising from the chemical: Vapors are heavier than air and may travel to ignition source and flash back. Heat of fire may cause an exothermic auto polymerization reaction. Emits toxic fumes under fire conditions. Closed containers may explode due to pressure build up when exposed to extreme heat.

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: Provide explosion-proof ventilation. Avoid contact with skin, eyes or clothing. Avoid breathing vapors. Wear appropriate protective clothing as described in Section 8. Eliminate all ignition sources.

Environmental precautions: Avoid release to the environment. 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: Avoid contact with eyes, skin, and clothing. Avoid breathing vapors or mist. Wash thoroughly after handling. Wear protective clothing and equipment as described in Section 8. Use with adequate ventilation. Ground container when pouring. Keep away from heat, sparks, flames and all sources of ignition. Do not expose to direct sunlight. Empty containers retain product residues and can be hazardous. Follow all SDS precautions when handling empty containers.

Conditions for safe storage, including any incompatibilities: Store in a cool, dry, well ventilated area. Keep container tightly closed when not in use. Do not store in direct sunlight. Prevent moisture contact. Protect from physical damage. Keep away from oxidizers and other incompatible materials.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines:

Methyl Methacrylate	100 ppm TWA OSHA PEL 50 ppm TWA ACGIH TLV 100 ppm ACGIH TLV STEL
Acrylic Copolymer Resin	None Established
Dibutyl Maleate	None Established
Triethylene Glycol Dimethacrylate	None Established

N,N-Dimethyl-p-toluidine	0.5 ppm TWA AIHA WEEL

Appropriate engineering controls: Use with adequate general or local exhaust ventilation to maintain exposures below occupational exposure limits. Use explosion-proof equipment where required.

Personal Protective Equipment:
Respiratory protection: None required with adequate ventilation. An approved air-purifying respirator with an organic vapor cartridge may be permissible under certain limited circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection. Selection and use of respiratory equipment must be in accordance with appropriate regulations and good industrial hygiene practice.
Skin protection: Wear impervious gloves such as nitrile rubber or other impervious gloves.
Eye protection: Wear safety chemical goggles when the possibility exists for eye contact due to splashing or spraying material.
Other: Wear impervious clothing if needed to prevent any contact with this product, such as gloves, apron, boots, or whole body suit.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.): Moderately turbid fluid with a sweet ester odor
Odor: Sweet ester odor

Odor threshold: Not available	**pH:** Not available
Melting Point/Freezing Point: Not available	**Boiling Point:** 212°F / 100°C
Flash point: 50 °F / 10°C (Setaflash)	**Evaporation rate:** >1 (butyl acetate = 1)
Flammability (solid, gas): Not applicable	
Flammable limits: LEL: 2.1% (Methyl Methacrylate)	**UEL:** 12.5% (Methyl Methacrylate)
Vapor pressure: 35 mmHg @ 20°C (Methyl Methacrylate)	**Vapor density:** >1
Relative density: ~1	**Solubility(is):** 16 g/L (in water)
Partition coefficient: n-Octanol/water: Not applicable	**Auto-ignition temperature:** >500°F / 260°C (Methyl Methacrylate)
Decomposition temperature: Not available	**Viscosity:** Not available

10. STABILITY AND REACTIVITY

Reactivity: Polymerization can occur.
Chemical stability: Stable when stabilized. The product is unstable at elevated temperatures and pressures.
Possibility of hazardous reactions: Methyl methacrylate can undergo hazardous polymerization if exposed to excessive heat, peroxides and polymerization catalysts.
Conditions to avoid: Avoid heat, sparks and open flames.
Incompatible materials: Avoid contact with oxidizing agents, reducing agents, peroxides and polymerization catalysts.
Hazardous decomposition products: Thermal decomposition may produce carbon oxides, toxic fumes and hydrocarbons.

11. TOXICOLOGICAL INFORMATION

Inhalation: May cause respiratory tract irritation with coughing, mucous production and shortness of breath. Methyl methacrylate has been shown to cause irritation of the upper respiratory tract in studies with laboratory animals.
Ingestion: Swallowing may cause gastrointestinal irritation, nausea and diarrhea.
Skin contact: Causes skin irritation. Methyl methacrylate has been shown to cause severe irritation when tested undiluted on rabbit skin. Causes skin sensitization. Cases of contact dermatitis has been reported in workers exposed to methyl methacrylate.
Eye contact: May cause eye irritation. Methyl methacrylate has been shown to cause mild irritation to the conjunctiva in animal studies.

Chronic effects from short- and long-term exposure: In subchronic inhalation studies with methyl methacrylate, systemic toxic effects were seen in rats to the liver, kidney, brain, spleen and bone marrow >1000 ppm. Oral administration of methyl methacrylate to rats resulted in a NOAEL of 200 mg/kg. In a 90day oral gavage study in male and female rats, dibutyl maleate was shown to cause increase kidney weights, chronic progressive nephropathy and tubular basophilia within the renal cortex. After a 2-week recovery period the kidneys effects persisted in both sexes. LOAEL 30 mg/kg.

Reproductive Toxicity: This product is not expected to cause adverse reproductive or developmental effects. Methyl methacrylate did not cause reproductive effects on male fertility when animals were exposed to 9000 ppm. No teratogenicity, embryotoxicity or fetotoxicity has been observed at exposure levels up to and including 2028 ppm

Sensitization: Methyl methacrylate and triethylene glycol dimethylacrylate have been shown to cause sensitization in a mouse local lymphnode assays.

Mutagenicity: Methyl methacrylate was negative in sister chromatid exchange assay in mammalian cells and in a vivo chromosome aberration assay.

Carcinogenicity: None of the components are listed as a carcinogen by IARC, NTP, ACGIH or OSHA.
In a 2 year NTP carcinogenicity study N,N-dimethyl-p-toluidine was administered by gavage to male and female mice and rats. Results included increased incidences of nonneoplastic lesions of the liver and nasal cavity in male and female rats and mice; the kidney in male and female rats; the spleen and bone marrow in male and female rats and female mice; the lung in male and female mice; the forestomach in male rats and female mice; the mesenteric lymph node in male rats and female mice; and the olfactory lobe in male and female mice.

Acute Toxicity Values: No toxicity data for the product. Acute Toxicity Estimate: Oral rat LD50 6174 mg/kg
Methyl Methacrylate: Oral rat LD50 7800 mg/kg; Inhalation rat LC50 3750 mg/L/8 hr; Dermal rabbit LD60 >5000 mg/kg
Acrylic Copolymer Resin: No toxicity data available
Dibutyl Maleate: Oral rat LD50 $\geq$3730 mg/kg; Inhalation rat LC50 > 5000 mg/m³; Dermal rat LD50 > 2000 mg/kg
Triethylene Glycol Dimethacrylate: Dermal rabbit LD50 > 2000 mg/kg
N,N-Dimethyl-p-toluidine: Oral rat LD50 139 mg/kg; Inhalation rat LC50 1400 mg/m3/4 hr; Dermal rabbit LD50 > 2000 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Methyl Methacrylate: 96 hr LC50 Pimephales promelas 130 mg/L; 24 hr LC50 daphnia magna 1760 mg/L
Acrylic Copolymer Resin: No data available
Dibutyl Maleate: 96 hr EC50 Oncorhynchus mykiss 1.2 mg/L; 48 hr EC50 daphnia magna 21 mg/L; 72 hr EC50 Desmodesmus subspicatus 6.2 mg/L
Triethylene Glycol Dimethacrylate: 96 hr LC50 Danio rerio 16.4 mg/L; 72 hr EC50 Pseudokirchnerella subcapitata > 100 mg/L
N,N-Dimethyl-p-toluidine: 96 hr LC50 Pimephales promelas 46 mg/L; 48 hr daphnia magna 15.259 mg/L; 72 hr EC50 Pseudokirchneriella subcapitata 24.37002 mg/L

Persistence and degradability: Methyl methacrylate, N,N-dimethyl-p-toluidine, dibutyl maleate and triethylene glycol dimethacrylate are readily biodegradable.
Bioaccumulative potential: Methyl methacrylate has a BCF of 2.97. Dibutyl maleate has a BCF of 1.91
Mobility in soil: Methyl methacrylate has a high mobility in soil.
Other adverse effects: None known.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all local, state and federal regulations.

14. TRANSPORT INFORMATION

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
DOT	UN1247	Methyl Methacrylate Monomer, Stabilized	3	II	None
TDG	UN1247	Methyl Methacrylate Monomer, Stabilized	3	II	None
IMDG	UN1247	Methyl Methacrylate Monomer, Stabilized	3	II	None
IATA	UN1247	Methyl Methacrylate Monomer, Stabilized	3	II	None

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: None known

15. REGULATORY INFORMATION

CERCLA: This product has a Reportable Quantity (RQ) of 1666 lbs. (based on the RQ for Methyl Methacrylate of 1000 lbs). Releases above the RQ must be reported to the National Response Center. 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, Reactive 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):

Methyl Methacrylate 80-62-6 40-60%

California Proposition 65
This product contains the following chemicals known to the State of California to cause cancer or reproductive toxicity (birth defects):

N,N-Dimethyl-p-toluidine	99-97-8	0.1-1%	Cancer

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

CANADA:
Canadian WHMIS Classification: Class B-2 (Flammable Liquid) Class D Division 2 Subdivision B (Toxic Material Causing other Toxic Effects)
This product has been classified under the CPR and this MSDS discloses information elements required by the CPR.

16. OTHER INFORMATION

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

SDS Revision History: Converted to GHS format. All sections revised.
Date of preparation: July 17, 2014
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.

SL Filler Blend
SAFETY DATA SHEET

1. IDENTIFICATION

Product Identifier: SL Filler Blend

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

Classification:

Physical	Health
Not Hazardous	Carcinogenicity Category 1A Specific Target Organ Toxicity – Repeat Exposure Category 1

Labeling:

Danger!

Hazard statement(s)

May cause cancer by inhalation.
Causes damage to lungs through prolonged or repeated inhalation exposure.

Precautionary statement(s)

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use personal protective equipment as required.
IF exposed or concerned: Get medical attention.
Dispose of contents and container in accordance with local and national regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Concentration
Crystalline Silica	14808-60-7	60-80%
Calcium Carbonate	1317-65-3	20-40%

4. FIRST-AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial ventilation. Get medical attention if irritation persists.
Skin contact: Remove contaminated clothing and launder before reuse. Wash skin with soap and water. Get medical attention if irritation develops or persists.
Eye contact: Immediately flush eyes with large quantities of water for several minutes, holding the eyelids apart. Get medical attention if irritation persists.
Ingestion: If swallowed, rinse mouth with water.

Most important symptoms/effects, acute and delayed: Dust may cause mechanical eye and skin irritation. Inhalation of dust may cause respiratory irritation, coughing and difficulty in breathing. Prolonged overexposure to respirable crystalline silica may cause lung disease (silicosis) and increase the risk of lung cancer. Risk of cancer depends on duration and level of exposure.

Indication of immediate medical attention and special treatment, if necessary: None required under normal conditions of use.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media: Use media appropriate to the surrounding fire.

Specific hazards arising from the chemical: Not flammable or combustible. Dry powders may accumulate static charge in handling which can be a source of ignition for flammable atmospheres.

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: Wear appropriate protective clothing as described in Section 8.

Environmental precautions: Report releases as required by local and federal authorities.

Methods and materials for containment and cleaning up: Collect using dustless method and place in appropriate container for use or disposal.

7. HANDLING AND STORAGE

Precautions for safe handling: Avoid contact with eyes, skin and clothing. Do not breathe dust. Wear protective clothing and equipment as described in Section 8. Use with adequate ventilation and proper dust collection methods to keep exposure level below occupational exposure limits. Wash thoroughly with soap and water after use.

Dust can accumulate electrostatic charges due to friction from transfer and mixing operations and cause an electrical spark (ignition source) which can ignite flammable liquids and atmospheres. Provide adequate precautions when adding this product to flammable and combustible mixtures like paints and coating, such as electrical grounding and bonding, inert atmosphere or non-sparking tools. However, bonding and grounds may not eliminate the hazard for static accumulation.

Empty containers retain product residues. Follow all SDS precautions in handling empty containers.

Conditions for safe storage, including any incompatibilities: Store in a cool, dry, well ventilated area. Protect from physical damage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines:

Crystalline Silica	$\frac{10 \text{ mg/m}^3}{\% \text{ Silica} + 2}$ TWA OSHA PEL (respirable fraction) $\frac{30 \text{ mg/m}^3}{\% \text{ Silica} + 2}$ TWA OSHA PEL (total dust) 0.025 mg/m3 TWA ACGIH TLV (respirable fraction)
Calcium Carbonate	5 mg/m^3 TWA OSHA PEL (respirable fraction) 15 mg/m3 TWA OSHA PEL (total dust)

Appropriate engineering controls: Use with adequate general or local exhaust ventilation to maintain exposures below the occupational exposure limits.

Individual protection measures, such as personal protective equipment:
Respiratory protection: If the exposure limits are exceeded a NIOSH approved particulate respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 or other applicable regulations and good industrial hygiene practice.
Skin protection: Abrasive resistant gloves are recommended to prevent skin contact.
Eye protection: Chemical safety glasses with sideshields are recommended to prevent eye contact.
Other: None required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.): White or tan granular powder
Odor: No odor

Odor threshold: Not available	**pH:** Not applicable
Melting Point/Freezing Point: 3110°F / 1710°C	**Boiling Point**: 4046°F/2230°C

Flash point: Not flammable	**Evaporation rate:** Not applicable
Flammability (solid, gas): Not flammable or combustible	
Flammable limits: LEL: Not applicable	**UEL:** Not applicable
Vapor pressure: Not applicable	**Vapor density:** Not applicable
Relative density: 2.65	**Solubility(is):** Insoluble in water
Partition coefficient: n-Octanol/water: Not applicable	**Auto-ignition temperature:** Not applicable
Decomposition temperature: Not available	**Viscosity:** Not applicable

10. STABILITY AND REACTIVITY

Reactivity: Not reactive under normal conditions of use.
Chemical stability: Stable
Possibility of hazardous reactions: Crystalline silica will dissolve in hydrofluoric acid and produce silicone tetrafluoride.
Conditions to avoid: None known.
Incompatible materials: Avoid contact with oxidizing agents.
Hazardous decomposition products: None known.

11. TOXICOLOGICAL INFORMATION

Inhalation: Inhalation of dust may cause irritation to the nose, throat and upper respiratory tract with coughing and shortness of breath.
Ingestion: Not expected to cause adverse effects.
Skin contact: Prolonged skin contact may cause mechanical irritation and abrasions.
Eye contact: Dust may cause irritation or redness with inflammation of the cornea. May cause mechanical irritation.

Chronic effects from short- and long-term exposure: Chronic inhalation of respirable crystalline silica dust may cause a progressive, disabling and sometimes fatal lung disease called silicosis. Symptoms include cough, shortness of breath, wheezing, non-specific chest illness and reduced pulmonary function.

Reproductive Toxicity: None of the components have been shown to cause reproductive or developmental toxicity.

Sensitization: None of the components have been shown to cause sensitization in animals or humans.

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

Carcinogenicity: Crystalline silica quartz is listed as “Carcinogenic to Humans” (Group 1) by IARC, as a “Known to be a Human Carcinogen" by NTP and “Suspected Human Carcinogen, A2 by ACGIH. None of the other components are listed as a carcinogen by IARC, NTP, ACGIH or OSHA.

Acute Toxicity Values:
Crystalline Silica, Quartz: Oral rat LD50 >22,500 mg/kg
Calcium Carbonate: Oral rat LD50 >2000 mg/kg, Inhalation rat LC50 >3 mg/L/4 hr, Dermal rat LD50 >2000 mg/kg (structurally similar chemical)

12. ECOLOGICAL INFORMATION

Ecotoxicity:
Crystalline Silica, Quartz: No data available
Calcium Carbonate: 96 hr LC50 Oncorhynchus mykiss >100 mg/L, 48 hr EC50 daphnia magna >10 mg/L, 72 hr EC50 Desmodesmus subspicatus >14 mg/L

Persistence and degradability: Biodegradation is not applicable to inorganic substances.
Bioaccumulative potential: Not expected to be bioaccumulative.
Mobility in soil: No data available.
Other adverse effects: None known.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all local, state and federal regulations.

14. TRANSPORT INFORMATION

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
DOT	None	Not Regulated	None	None	None
TDG	None	Not Regulated	None	None	None
IMDG	None	Not Regulated	None	None	None
IATA	None	Not Regulated	None	None	None

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: None known

15. REGULATORY INFORMATION

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): Chronic Health

SARA 313 Information: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

California Proposition 65
This product contains the following chemicals known to the State of California to cause cancer or reproductive toxicity (birth defects):

Crystalline silica, quartz	14808-60-7	90-100%	cancer

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

CANADA:
Canadian WHMIS Classification: Class D Division 2A (Very toxic material causing other toxic effects)
This product has been classified under the CPR and this SDS discloses information elements required by the CPR.

16. OTHER INFORMATION

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

SDS Revision History: All sections revised – Converted to GHS format
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.

Flintshot, Qrok, 290 Flour, ¼ NJ, ½ NJ, F-70, Q11, Q28, Q40, Vistaquartz
SAFETY DATA SHEET

1. IDENTIFICATION

Product Identifier: Flintshot, Qrok, 290 Flour ¼ NJ, ½ NJ, F-70, Q11, Q28, Q40, Vista-Quartz

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: January 7, 2015

2. HAZARD(S) IDENTIFICATION

Classification:

Physical	Health
Not Hazardous	Carcinogenicity Category 1A Specific Target Organ Toxicity – Repeat Exposure Category 1

Labeling:

Danger!

Hazard statement(s)

May cause cancer by inhalation.
Causes damage to lungs through prolonged or repeated inhalation exposure.

Precautionary statement(s)

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use personal protective equipment as required.
IF exposed or concerned: Get medical attention.
Dispose of contents and container in accordance with local and national regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Concentration
Crystalline Silica	14808-60-7	90-100%
Titanium Dioxide	13463-67-7	0-5%

4. FIRST-AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial ventilation. Get medical attention if irritation persists.
Skin contact: Remove contaminated clothing and launder before reuse. Wash skin with soap and water. Get medical attention if irritation develops or persists.
Eye contact: Immediately flush eyes with large quantities of water for several minutes, holding the eyelids apart. Get medical attention if irritation persists.
Ingestion: If swallowed, rinse mouth with water.

Most important symptoms/effects, acute and delayed: Dust may cause mechanical eye and skin irritation. Inhalation of dust may cause respiratory irritation, coughing and difficulty in breathing. Prolonged overexposure to respirable crystalline silica may cause lung disease (silicosis) and increase the risk of lung cancer. Risk of cancer depends on duration and level of exposure

Indication of immediate medical attention and special treatment, if necessary: None required under normal conditions of use.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media: Use media appropriate to the surrounding fire.

Specific hazards arising from the chemical: Not flammable or combustible. Dry powders may accumulate static charge in handling which can be a source of ignition for flammable atmospheres.

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: Wear appropriate protective clothing as described in Section 8.

Environmental precautions: Report releases as required by local and federal authorities.

Methods and materials for containment and cleaning up: Collect using dustless method and place in appropriate container for use or disposal.

7. HANDLING AND STORAGE

Precautions for safe handling: Avoid contact with eyes, skin and clothing. Do not breathe dust. Wear protective clothing and equipment as described in Section 8. Use with adequate ventilation and proper dust collection methods to keep exposure level below occupational exposure limits. Wash thoroughly with soap and water after use.

Dust can accumulate electrostatic charges due to friction from transfer and mixing operations and cause an electrical spark (ignition source) which can ignite flammable liquids and atmospheres. Provide adequate precautions when adding this product to flammable and combustible mixtures like paints and coating, such as electrical grounding and bonding, inert atmosphere or non-sparking tools. However, bonding and grounds may not eliminate the hazard for static accumulation.

Empty containers retain product residues. Follow all SDS precautions in handling empty containers.

Conditions for safe storage, including any incompatibilities: Store in a cool, dry, well ventilated area. Protect from physical damage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines:

Crystalline Silica	$\frac{10\ mg/m^3}{\%\ Silica + 2}$ TWA OSHA PEL (respirable fraction) $\frac{30\ mg/m^3}{\%\ Silica + 2}$ TWA OSHA PEL (total dust) 0.025 mg/m3 TWA ACGIH TLV (respirable fraction)
Titanium Dioxide	15 mg/m3 TWA OSHA PEL (total dust) 10 mg/m3 TWA ACGIH TLV

Appropriate engineering controls: Use with adequate general or local exhaust ventilation to maintain exposures below the occupational exposure limits.

Individual protection measures, such as personal protective equipment:
Respiratory protection: If the exposure limits are exceeded a NIOSH approved particulate respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 or other applicable regulations and good industrial hygiene practice.
Skin protection: Abrasive resistant gloves are recommended to prevent skin contact.
Eye protection: Chemical safety glasses with sideshields are recommended to prevent eye contact.
Other: None required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.): White or tan granular powder
Odor: No odor

Odor threshold: Not available	**pH:** Not applicable

Melting Point/Freezing Point: 3110°F / 1710°C	**Boiling Point**: 4046°F/2230°C
Flash point: Not flammable	**Evaporation rate:** Not applicable
Flammability (solid, gas): Not flammable or combustible	
Flammable limits: LEL: Not applicable	**UEL:** Not applicable
Vapor pressure: Not applicable	**Vapor density:** Not applicable
Relative density: 2.65	**Solubility(is):** Insoluble in water
Partition coefficient: n-Octanol/water: Not applicable	**Auto-ignition temperature:** Not applicable
Decomposition temperature: Not available	**Viscosity:** Not applicable

10. STABILITY AND REACTIVITY

Reactivity: Not reactive under normal conditions of use.
Chemical stability: Stable
Possibility of hazardous reactions: Crystalline silica will dissolve in hydrofluoric acid and produce silicone tetrafluoride.
Conditions to avoid: None known.
Incompatible materials: Avoid contact with oxidizing agents.
Hazardous decomposition products: None known.

11. TOXICOLOGICAL INFORMATION

Inhalation: Inhalation of dust may cause irritation to the nose, throat and upper respiratory tract with coughing and shortness of breath.
Ingestion: Not expected to cause adverse effects.
Skin contact: Prolonged skin contact may cause mechanical irritation and abrasions.
Eye contact: Dust may cause irritation or redness with inflammation of the cornea. May cause mechanical irritation.

Chronic effects from short- and long-term exposure: Chronic inhalation of respirable crystalline silica dust may cause a progressive, disabling and sometimes fatal lung disease called silicosis. Symptoms include cough, shortness of breath, wheezing, non-specific chest illness and reduced pulmonary function.

Reproductive Toxicity: None of the components have been shown to cause reproductive or developmental toxicity.

Sensitization: None of the components have been shown to cause sensitization in animals or humans.

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

Carcinogenicity: Crystalline silica quartz is listed as “Carcinogenic to Humans” (Group 1) by IARC, as a “Known to be a Human Carcinogen" by NTP and “Suspected Human Carcinogen, A2 by ACGIH. Titanium dioxide is listed by IARC as “Possibly Carcinogenic to Humans”, Group 2B. None of the other components are listed as a carcinogen by IARC, NTP, ACGIH or OSHA.

Acute Toxicity Values:
Crystalline Silica, Quartz: Oral rat LD50 >22,500 mg/kg
Titanium Dioxide: Oral rat LD50 >5000 mg/kg, Inhalation rat LC50 >6.82 mg/L/4 hr

12. ECOLOGICAL INFORMATION

Ecotoxicity:
Crystalline Silica, Quartz: No data available
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

Persistence and degradability: Biodegradation is not applicable to inorganic substances.
Bioaccumulative potential: Not expected to be bioaccumulative.
Mobility in soil: No data available.
Other adverse effects: None known.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all local, state and federal regulations.

14. TRANSPORT INFORMATION

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
DOT	None	Not Regulated	None	None	None
TDG	None	Not Regulated	None	None	None
IMDG	None	Not Regulated	None	None	None
IATA	None	Not Regulated	None	None	None

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: None known

15. REGULATORY INFORMATION

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): Chronic Health

SARA 313 Information: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

California Proposition 65
This product contains the following chemicals known to the State of California to cause cancer or reproductive toxicity (birth defects):

Crystalline silica, quartz	14808-60-7	90-100%	cancer
Titanium Dioxide	13463-67-7	0-5%	cancer

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

CANADA:
Canadian WHMIS Classification: Class D Division 2A (Very toxic material causing other toxic effects)
This product has been classified under the CPR and this SDS discloses information elements required by the CPR.

16. OTHER INFORMATION

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

SDS Revision History: All sections revised – Converted to GHS format
Date of preparation: January 7, 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.

Cryl-A-Top T301, T303 Clear, Cryl-A-Top T301, T303 Pigmented
SAFETY DATA SHEET

1. IDENTIFICATION

Product Identifier: Cryl-A-Top T301, T303 Clear, Cryl-A-Top T301, T303 Pigmented

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: September 8, 2014

2. HAZARD(S) IDENTIFICATION

Classification:

Physical	Health
Flammable Liquid Category 3	Skin Irritation Category 2 Skin Sensitization Category 1 Specific Target Organ Toxicity Single Exposure Category 3 (Respiratory Irritation) Specific Target Organ Toxicity Repeat Exposure Category 2

Labeling:

Danger!

Hazard statement(s)

Flammable liquid and vapor.
Causes skin irritation
May cause an allergic skin reaction
May cause respiratory irritation.
May cause damage to kidneys, liver and thyroid through prolonged or repeated exposure by ingestion.

Precautionary statement(s)

Keep away from heat, sparks, open flames, and hot surfaces.
No smoking.
Keep container tightly closed.
Ground and bond container and receiving equipment
Use explosion-proof electrical, ventilating and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe mist, vapors or spray.
Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves, protective clothing and eye protection.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical attention.
Wash contaminated clothing before reuse.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor if you feel unwell.
Get medical attention if you feel unwell.
In case of fire: Use water fog, carbon dioxide, foam or dry chemical to extinguish.
Store in a well-ventilated place. Keep cool. Keep container tightly closed.
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
Methyl Methacrylate	80-62-6	60-80%
Acrylate/Methacrylate Polymer	Proprietary	10-20%
Triethylene Glycol Dimethacrylate	109-16-0	1-10%
2-Hydroethyl-p-Toluidine	3077-12-1	1-5%
Ethoxylated Nonyl Phenol Acrylate	Proprietary	0-10%
Titanium Dioxide*	13463-67-7	0-10%
Dibutyl Maleate	105-76-0	0-5%
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	41556-26-7	0-5%
A mixture of branched and linear C7-C9 alkyl propionates	Proprietary	0-5%

* The titanium dioxide 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: Remove victim to fresh air. If breathing is difficult, have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration. Get medical attention**.**
Skin contact: Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation or other symptoms develop, get medical attention. Launder clothing before re-use.

Eye contact: Flush with large quantities of water for several minutes, holding the eyelids apart. Get medical attention if irritation persists.
Ingestion: If conscious, rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious or convulsing person. Get medical attention.

Most important symptoms/effects, acute and delayed: Causes skin irritation. May cause eye and respiratory tract irritation. May cause allergic skin reaction (skin sensitization).

Indication of immediate medical attention and special treatment, if necessary: None required under normal conditions of use.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media: Use water fog, carbon dioxide, foam or dry chemical. Cool fire exposed containers with water.

Specific hazards arising from the chemical: Vapors are heavier than air and may travel to ignition source and flash back. Heat of fire may cause an exothermic auto polymerization reaction. Emits toxic fumes under fire conditions. Closed containers may explode due to pressure build up when exposed to extreme heat.

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: Provide explosion-proof ventilation. Avoid contact with skin, eyes or clothing. Avoid breathing vapors. Wear appropriate protective clothing as described in Section 8. Eliminate all ignition sources.

Environmental precautions: Avoid release to the environment. 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: Avoid contact with eyes, skin, and clothing. Avoid breathing vapors or mist. Wash thoroughly after handling. Wear protective clothing and equipment as described in Section 8. Use with adequate ventilation. Ground container when pouring. Keep away from heat, sparks, flames and all sources of ignition. Do not expose to direct sunlight. Empty containers retain product residues and can be hazardous. Follow all SDS precautions when handling empty containers.

Conditions for safe storage, including any incompatibilities: Store in a cool, dry, well ventilated area. Keep container tightly closed when not in use. Do not store in direct sunlight. Prevent moisture contact. Protect from physical damage. Keep away from oxidizers and other incompatible materials.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines:

Methyl Methacrylate	100 ppm TWA OSHA PEL 50 ppm TWA ACGIH TLV 100 ppm ACGIH TLV STEL
Acrylate/Methacrylate Polymer	None Established
Triethylene Glycol Dimethacrylate	None Established
2-Hydroethyl-p-Toluidine	None Established
Ethoxylated Nonyl Phenol Acrylate	None Established
Titanium Dioxide	15 mg/m3 TWA OSHA PEL (total dust) 10 mg/m3 TWA ACGIH TLV
Dibutyl Maleate	None Established
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	None Established
A mixture of branched and linear C7-C9 alkyl propionates	None Established

Appropriate engineering controls: Use with adequate general or local exhaust ventilation to maintain exposures below occupational exposure limits. Use explosion-proof equipment where required.

Personal Protective Equipment:
Respiratory protection: None required with adequate ventilation. An approved air-purifying respirator with an organic vapor cartridge may be permissible under certain limited circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection. Selection and use of respiratory equipment must be in accordance with appropriate regulations and good industrial hygiene practice.
Skin protection: Wear impervious gloves.
Eye protection: Wear safety chemical goggles when the possibility exists for eye contact due to splashing or spraying material.
Other: Wear impervious clothing if needed to prevent any contact with this product, such as gloves, apron, boots, or whole body suit.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.): Moderately turbid fluid.
Odor: Sweet ester odor

Odor threshold: Not available	**pH:** Not available
Melting Point/Freezing Point: Not available	**Boiling Point:** 212°F / 100°C
Flash point: 50 °F / 10°C (Setaflash)	**Evaporation rate:** >1 (butyl acetate = 1)
Flammability (solid, gas): Not applicable	
Flammable limits: LEL: 2.1% (Methyl Methacrylate)	**UEL:** 12.5% (Methyl Methacrylate)
Vapor pressure: 35 mmHg @ 20°C (Methyl Methacrylate)	**Vapor density:** >1
Relative density: ~1	**Solubility(is):** 16 g/L (in water)
Partition coefficient: n-Octanol/water: Not applicable	**Auto-ignition temperature:** >500°F / 260°C (Methyl Methacrylate)

Decomposition temperature: Not available	**Viscosity:** Not available

10. STABILITY AND REACTIVITY

Reactivity: Polymerization can occur.
Chemical stability: Stable when stabilized. The product is unstable at elevated temperatures and pressures.
Possibility of hazardous reactions: Methyl methacrylate can undergo hazardous polymerization if exposed to excessive heat, peroxides and polymerization catalysts.
Conditions to avoid: Avoid heat, sparks and open flames.
Incompatible materials: Avoid contact with oxidizing agents, reducing agents, peroxides and polymerization catalysts.
Hazardous decomposition products: Thermal decomposition may produce carbon oxides, toxic fumes and hydrocarbons.

11. TOXICOLOGICAL INFORMATION

Inhalation: May cause respiratory tract irritation. Methyl methacrylate has been shown to cause respiratory in studies in laboratory animals.
Ingestion: Swallowing may cause gastrointestinal irritation, nausea and diarrhea.
Skin contact: Causes skin irritation. Methyl methacrylate has been shown to cause severe irritation when tested undiluted on rabbit skin. Causes skin sensitization. Cases of contact dermatitis has been reported in workers exposed to methyl methacrylate.
Eye contact: May cause eye irritation. Methyl methacrylate has been shown to cause mild irritation to the conjunctiva in animal studies.

Chronic effects from short- and long-term exposure: In subchronic inhalation studies with methyl methacrylate, systemic toxic effects were seen in rats to the liver, kidney, brain, spleen and bone marrow >1000 ppm. Oral administration of methyl methacrylate to rats resulted in a NOAEL of 200 mg/kg. In a subchronic oral study in rats, a mixture of branched and linear C7-C9 alkyl propionates was shown to cause elevated serum liver enzyme levels and enlarged livers. Treatment-related effects, including mild anemia and toxic effects in the liver, were seen. Slight activity of the thyroid gland was also recorded and considered a secondary response to the effects in the liver. The no observable effect level (NOEL) was 2 mg/kg.

Reproductive Toxicity: This product is not expected to cause adverse reproductive or developmental effects. Methyl methacrylate did not cause reproductive effects on male fertility when animals were exposed to 9000 ppm. No teratogenicity, embryotoxicity or fetotoxicity has been observed at exposure levels up to and including 2028 ppm

Sensitization: Methyl methacrylate, triethylene glycol dimethyl acrylate, hydroethyl-p-toluidine, ethoxylated nonyl phenol acrylate, dibutyl maleate and bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate have been shown to cause sensitization in animal studies.

Mutagenicity: Methyl methacrylate was negative in sister chromatid exchange assay in mammalian cells and in and in a vivo chromosome aberration assay.

Carcinogenicity: Titanium dioxide is listed by IARC as a group 2B carcinogen (possible human carcinogen). Titanium dioxide is 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: No toxicity data for the product. Acute Toxicity Estimate: Oral rat LD50 6174 mg/kg
Methyl Methacrylate: Oral rat LD50 7800 mg/kg; Inhalation rat LC50 3750 mg/L/8 hr; Dermal rabbit LD60 >5000 mg/kg
Acrylate/Methacrylate Polymer: No toxicity data available
Triethylene Glycol Dimethacrylate: Dermal rabbit LD50 > 2000 mg/kg
2-Hydroethyl-p-Toluidine: No toxicity data available
Ethoxylated Nonyl Phenol Acrylate: Oral rat LD50 >5000 mg/kg, Dermal rabbit LD50 >5000 mg/kg.
Titanium Dioxide: Oral rat LD50 > 5000 mg/kg, Inhalation rat LC50 6.82 mg/L/4 hr,
Dibutyl Maleate: Oral rat LD50 $\geq$3730 mg/kg, Inhalation rat LC50 > 5000 mg/m³/4 hr, Dermal rat LD50 > 2000 mg/kg
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate: No toxicity data available
A mixture of branched and linear C7-C9 alkyl propionates: Oral rat LD50 >2000 mg/kg, Dermal rat LD50 >2000 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity:
Methyl Methacrylate: 96 hr LC50 Pimephales promelas 130 mg/L; 24 hr LC50 daphnia magna 1760 mg/L
Acrylate/Methacrylate Polymer: No data available
Triethylene Glycol Dimethacrylate: 96 hr LC50 Danio rerio 16.4 mg/L; 72 hr EC50 Pseudokirchnerella subcapitata > 100 mg/L
2-Hydroethyl-p-Toluidine: No data available
Ethoxylated Nonyl Phenol Acrylate: Oral rat LD50 >5000 mg/kg, Dermal rabbit LD50 >5000 mg/kg.
Titanium Dioxide: No data available
Dibutyl Maleate: 96 hr LC50 Oncorhynchus mykiss 1.2 mg/L, 48 hr EC50 daphnia magna 21 mg/L
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate: No data available
A mixture of branched and linear C7-C9 alkyl propionates: 96 hr LC50 Brachydanio rerio > 9.9 mg/l, 48 hr EC50 daphnia magna 3.2 mg/l, 72 hr EC50 Scenedesmus sp. >2 mg/L

Persistence and degradability: Methyl methacrylate, N,N-dimethyl-p-toluidine and triethylene glycol dimethacrylate are readily biodegradable.
Bioaccumulative potential: Methyl methacrylate has a BCF of 2.97.
Mobility in soil: Methyl methacrylate has a high mobility in soil.
Other adverse effects: None known.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all local, state and federal regulations.

14. TRANSPORT INFORMATION

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
DOT	UN1247	Methyl Methacrylate Monomer, Stabilized	3	II	None
TDG	UN1247	Methyl Methacrylate Monomer, Stabilized	3	II	None
IMDG	UN1247	Methyl Methacrylate Monomer, Stabilized	3	II	None

IATA	UN1247	Methyl Methacrylate Monomer, Stabilized	3	II	None

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: None known

15. REGULATORY INFORMATION

CERCLA: This product has a Reportable Quantity (RQ) of 1250 lbs. (based on the RQ for Methyl Methacrylate of 1000 lbs). Releases above the RQ must be reported to the National Response Center. 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, Reactive 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):

Methyl Methacrylate	80-62-6	60-80%

California Proposition 65
This product contains the following chemicals known to the State of California to cause cancer or reproductive toxicity (birth defects): None

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

CANADA:
Canadian WHMIS Classification: Class B (Flammable Liquid) Class D Division 2 Subdivision B (Toxic Material Causing other Toxic Effects)
This product has been classified under the CPR and this SDS discloses information elements required by the CPR.

16. OTHER INFORMATION

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

SDS Revision History: Converted to GHS format. All sections revised.
Date of preparation: September 8, 2014
Date of last revision: New SDS
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