

SAFETY DATA SHEET

According to Regulation (EC) No 1907/2006 (REACH)

1. PRODUCT IDENTIFICATION

Trade Name(s): Fast Set Gray--Part A
Product Description: Polyurethane Prepolymer
Synonyms: N/A
CAS No: N/A

Supplier:
EPRO Services, Inc.
PO Box 347
Derby, KS 67037
800-882-1896 (8:00am – 5:00pm CST)

2. HAZARD(S) IDENTIFICATION

Skin irritation: Category 2

Eye irritation: Category 2A

Respiratory sensitization: Category 1

Skin sensitization: Category 1

Specific target organ systemic toxicity - single exposure: Category 3 (Respiratory system)

Specific target organ systemic toxicity - repeated exposure (Inhalation): Category 2 (Respiratory system, Respiratory Tract)

Signal Word: Danger



Skin Contact: Causes skin irritation. Prolonged or repeated exposure can cause skin irritation, reddening, dermatitis and in some individuals, sensitization. Skin contact may result in allergic skin reactions or respiratory sensitization

Eye Contact: As a liquid or dust may cause serious eye irritation, inflammation and or damage to sensitive eye tissue.

Ingestion: Single dose oral toxicity is considered to be extremely low. Can result in irritation and corrosive action in mouth, stomach tissue and digestive tract.

Inhalation: May cause damage to organs (Respiratory system, Respiratory Tract) through prolonged or repeated exposure if inhaled.

Precautionary Statements: Do not handle until all safety precautions have been read and understood. Do not breathe vapors. In case of inadequate ventilation wear respiratory protection. Wear protective gloves and eye protection. Do not eat, drink, or smoke when using this product. Wash thoroughly after handling. Store locked up. Keep away from children. Dispose of contents and container in accordance with applicable local, regional, and national regulations.

Hazard Statement: Chronic: As a result of previous repeated overexposure or a single large dose, certain individuals develop isocyanate sensitization (chemical asthma) or tissue injury in the upper respiratory tract. Animal tests indicate skin contact alone may also lead to allergic respiratory reaction. These effects may be permanent. Any person developing asthmatic reaction or other sensitization should be removed from further exposure.

Potential Health Effects: At room temperature, MDI vapors are minimal due to low vapor pressure. However, heating, foaming or otherwise dispersing (drumming, venting, or pumping) operations may generate more vapor or aerosol concentrations of isocyanate. Excessive exposure may cause irritation of the eyes, upper respiratory tract, and lungs. Severe overexposure may lead to pulmonary edema. Respiratory sensitization with asthma like symptoms may occur in susceptible individuals. MDI concentration below the exposure guidelines may cause allergic respiratory reactions in individuals already sensitized. Symptoms may include coughing, dryness of throat, headache, nausea, difficulty breathing and feeling of tightness in the chest. Effects may be delayed. Impaired lung function (decreased ventilators capacity) has been associated with overexposure to isocyanate. Persons with Known Respiratory or Allergy Problems Must Not Be Exposed to This Product.

Carcinogenicity: MDI and polymeric MDI are not listed by the NTP, IARC or regulated by OSHA as carcinogens.

Warning: Our products may contain trace amounts of some chemicals considered by the State of California (Proposition 65) to be carcinogens or reproductive toxicants. www.P65Warnings.ca.gov

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	% by weight	Classification
4,4' – Diphenylmethane Diisocyanate CAS # 101-68-8	35	Acute Tox. 4 - H332; Skin irrit. 2 – H315; Eye Irrit. 2A – H319; Resp Sens. 1 – H334; Skin Sens. 1 – H317; STOT SE 3 – H335; STOT RE 2 – H373
Urethane Prepolymer Cas # - Trade Secret	5-10	Resp.Sens. 1 – H334; Skin Sens. 1 – H317
Talc Cas # 14807-96-6	7-13	Not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012)
Propylene Carbonate Cas # 108-32-7	1.49	Eye Irrit. 2A – H319
Polymer Cas # 254504001-5759	10-15	Acute Tox. 4 – H332; Skin Irrit. 2 – H315; Resp. Sens. 1A – H334; Skin Sens. 1A – H317; STOT SE 3 – H335; STOT RE 2 – H373
Scavenger Cas # 254504001-5709	10-15	Not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012)

4. FIRST-AID MEASURES

Eyes: Flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Seek immediate medical attention.

Skin: Wash off in flowing water or shower. Remove and wash contaminated clothing and discard contaminated shoes. Seek medical attention if redness, itching or a burning sensation develops or persists after the area is washed.

Ingestion: Give water (max.-2 glass full) Do not induce vomiting unless directed to do so by medical personnel. If gastrointestinal symptoms develop, consult medical personnel. (Never give anything by mouth to an unconscious person.)

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility immediately.

Most important symptoms and effects, both acute and delayed:

Pulmonary edema may be delayed.

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include stomach or intestinal upset (nausea, vomiting, diarrhea) irritation (nose, throat, airways). Cough Headache chest pain lung edema (fluid buildup in the lung tissue) Difficulty in breathing. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure if inhaled.

Notes to physician: No hazards which require special first aid measures.

5. FIRE-FIGHTING MEASURES

Fire Degradation Products: Harmful if inhaled. Toxic fumes are released in fire situations

Extinguishing Media: Dry chemical, carbon dioxide (CO₂), foam, water spray for large fires

Protective equipment: In case of fire, use normal fire-fighting equipment including a NIOSH approved, self-contained breathing apparatus (SCBA). Use water to cool containers.

Hazardous combustion products: carbon dioxide and carbon monoxide, Hydrogen cyanide (hydrocyanic acid), Isocyanates, Nitrogen oxides (NO_x), Bromine, Hydrocarbons.

Flashpoint: > 212 °F / > 100 °C

6. ACCIDENTAL RELEASE MEASURES

Spill: Evacuate spill area. With adequate ventilation and appropriate personal protective equipment, cover the area with an inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Keep in suitable, closed containers for disposal Saturate with water or decontamination solution below, but do not seal the container with the isocyanate mixture. Larger quantities of liquid may be transferred directly to drums for disposal.

Clean up: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities. Note: Isocyanate will react with water and generate carbon dioxide. This could result in the rupture of any closed container.

Disposal: Any disposal practice must be in compliance with all federal, state, and local laws and regulations.

Chemical additions, processing, storage, or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate, or otherwise inappropriate. Waste characterization and disposal compliance is the responsibility solely of the party generating the waste or deciding to discard or dispose of the material. Refer to RCRA 40 CFR 261 and/or any other appropriate federal, state, or local requirements for proper classification information.

Container Disposal: Drums/containers must be thoroughly drained to process or storage vessels before removal to an appropriate area for subsequent decontamination. Drums/containers must be decontaminated in properly ventilated areas by personnel protected from the inhalation of isocyanate vapors. Spray or pour 1 to 5 gallons of decontamination solution into the drum making sure the walls are well rinsed. Let the drum/container soak unsealed for 48 hours. Pour out the decontamination solution and triple rise the empty container. Puncture or otherwise destroy the rinsed container before disposal. Do not heat or cut empty containers with electric or gas torch.

7. HANDLING AND STORAGE

Storage: When stored between 60°F and 85°F (15° and 30°C) in sealed containers, typical shelf life is 6 months or more from the date of manufacture. Consult technical data sheet for shelf life requirements affecting performance quality. Should freezing occur, the material must be thawed thoroughly and mixed until uniform. Opened containers must be handled properly to prevent moisture contamination. Container hazardous when empty.

Handling: Use personal protective equipment when transferring material to or from drums, totes, or other containers. Safety glasses and gloves are the minimum protection. Additional precautions must be used when splash hazards are present. The reaction of polyols and isocyanates generate heat. Contact of the reacting materials with skin or eyes can cause severe burns and may be difficult to remove from the affected areas. Immediately wash affected areas with plenty of water and seek medical attention. In addition, such contact increases the risk of exposure to isocyanate vapors. Do not smoke or use naked lights, open flames, space heaters or other ignition sources near pouring or frothing operations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with Workplace Control Parameters

Components	Value Type (form of exposure)	Control Parameters/ Permissible Concentration	Basis
Scavenger Cas # 254504001-5709	TWA	1 mg/m ³ Respirable fraction	ACGIH
4,4' – Diphenylmethane Diisocyanate Cas # 101-68-8	TWA REL Ceiling time Ceiling	0.005 ppm 0.005 ppm; 0.05 mg/m ³ 0.020 ppm; 0.2 mg/m ³ 0.020 ppm; 0.2 mg/m ³	ACGIH NIOSH/GUIDE NIOSH/GUIDE OSHA_TRANS
Talc Cas # 14807-96-6	TWA REL TWA TWA	2 mg/m ³ Respirable fraction 2 mg/m ³ Respirable 0.1 mg/m ³ Respirable 0.3 mg/m ³ Total dust	ACGIH NIOSH/GUIDE Z3 Z3

Engineering Measures: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected, or apparent adverse effects.

Hygiene measures: Wash hands before breaks and at the end of workday. When using do not eat or drink. When using do not smoke.

Personal protective equipment

Respiratory Protection: In the case of vapor formation use a respirator with an approved filter.

Diisocyanates have poor warning properties. An air-purifying respirator with an organic vapor cartridge and an N95 prefilter can be used safely and effectively to reduce exposure, provided that appropriate cartridge change schedules are developed to ensure that cartridges are changed before breakthrough occurs. The employer is required to select the appropriate respirator for each situation and must consider potential exposure to chemicals in addition to diisocyanates. A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

Eye Protection: Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor, or mist.

Skin and Body Protection: Wear as appropriate: impervious clothing, Safety shoes, Choose body protection according to the amount and concentration of the dangerous substance at the workplace. Discard gloves that show tears, pinholes, or signs of wear. Wear resistant gloves (consult your safety equipment supplier).

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Viscous

VP: <0.01333 hPa (25°C)

VD: 1.5 (MDI) AIR = 1

Color: Cream/beige

Solubility in Water: Practically insoluble

Flammable Limits: LEL (%): ND – UEL (%): ND

Relative Vapor Density: > 1 AIR = 1

Density: 1.288 g/cm³ (20°C)

Physical state: liquid

Odor: Mild

% Volatile by wt: ND

Boiling Point: >392°F / >200°C

Flash Point: >212°F / >100°C

Evaporation Rate: <1 n-Butyl Acetate

Relative density: No data available

Viscosity, dynamic: ca. 20,000 mPa.s

10. STABILITY AND REACTIVITY

Stability: Material is stable when stored in sealed containers under normal conditions. Avoid extended exposure over 110 °F (45°C).

Reactivity: No decomposition if stored and applied as directed.

Hazardous Polymerization: Product will not undergo hazardous polymerization.

Conditions to Avoid: Freezing temperatures, exposure to moisture and incompatible materials.

Incompatible Materials: Acids, Alcohols, aluminum, Amines, Ammonia, bases, copper alloys, fluorides, Iron, oxidizing agents, strong alkalis, strong reducing agents, water, Zinc, Humid air.

Hazardous Decomposition Products: Carbon dioxide and carbon monoxide, Hydrocarbons, Hydrogen cyanide (hydrocyanic acid), Isocyanates, Nitrogen oxides (NOx).

11. TOXICOLOGICAL INFORMATION

Toxicological Data: Information on likely routes of exposure: Inhalation, Skin contact, Eye Contact, Ingestion

Acute toxicity: Not classified based on available information.

Components:

POLYMER:

Acute oral toxicity: LD 50 (Rat): > 5,000 mg/kg Method: OECD Test Guideline 425 GLP: yes

Acute inhalation toxicity: Assessment: The component/mixture is classified as acute inhalation toxicity, category 4.

Acute dermal toxicity: (Rabbit): > 9,400 mg/kg. Result: Irritating to skin. Result: Not irritating to eyes.

Remarks: Information given is based on data obtained from similar substances.

SCAVENGER: Result: Possibly irritating to skin. Result: Mildly irritating to eyes.

URETHANE PREPOLYMER: Result: Not irritating to skin. Result: Not irritating to eyes.

4,4' -DIPHENYLMETHANE DIISOCYANATE:

Acute oral toxicity: LD 50 (Rat): 9,200 mg/kg

Acute inhalation toxicity: LC 50 (Rat): 0.369 mg/l - exposure time: 4 hr; LC 50 (Rat): >2.24 mg/l – exposure time: 1 hr; Test atmosphere: dust/mist. Method: OECD Test Guideline 403. Assessment: The component/mixture is classified as acute inhalation toxicity, category 4.

Acute dermal toxicity: LD 50 (Rabbit): >7.900 mg/kg. Result: Irritating to skin. Result: Irritating to eyes.

TALC: Result: Possibly irritating to skin. Result: Possibly irritating to eyes.

PROPYLENE CARBONATE:

Acute oral toxicity: LD 50 (Rat): 29.1 g/kg

Acute dermal toxicity: LD 50 (Rabbit): >24 g/kg

Skin corrosion/irritation: Causes skin irritation. Species: Rabbit – Method: OECD Test Guideline 404 – Result: Not irritating to skin. Serious eye damage/eye irritation. Causes serious eye irritation.

Species: Rabbit – Method: OECD Test Guideline 405 - Result: Irritating to eyes.

Product: Remarks: May cause skin irritation and/or dermatitis. Vapors may cause irritation to the eyes, respiratory system, and the skin. Causes serious eye irritation.

Toxicological Data: Information on likely routes of exposure: Inhalation, skin contact, eye contact, ingestion.

Respiratory or skin sensitization: May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Components:

POLYMER:

Test Type: Maximisation Test (GPMT)

Species: Guinea pig

Assessment: May cause sensitization by skin contact. Result: The product is a skin sensitizer, sub-category 1A.

Assessment: May cause sensitization by inhalation. Result: The product is a respiratory sensitizer, sub-category 1A.

Genotoxicity in vitro: Test type: Ames test. Result: negative. Remarks: Information given is based on data obtained from similar substances.

Genotoxicity in vivo: Test type: In vivo micronucleus test. Test species: Rat. Method: OECD Test Guideline 474. Remarks: Information given is based on data obtained from similar substances.

URETHANE PREPOLYMER: Assessment: May cause sensitization by skin contact. May cause sensitization by inhalation.

4,4' -DIPHENYLMETHANE DIISOCYANATE: Assessment: May cause sensitization by inhalation. May cause sensitization by skin contact. Germ cell mutagenicity: Not classified based on available information.

PROPYLENE CARBONATE:

Acute oral toxicity: LD 50 (Rat): 29.1 g/kg

Acute dermal toxicity: LD 50 (Rabbit): >24 g/kg

Skin corrosion/irritation: Causes skin irritation. Species: Rabbit – Method: OECD Test Guideline 404 – Result: Not irritating to skin. Serious eye damage/eye irritation. Causes serious eye irritation.

Species: Rabbit – Method: OECD Test Guideline 405 - Result: Irritating to eyes.

Product: Remarks: May cause skin irritation and/or dermatitis. Vapors may cause irritation to the eyes, respiratory system, and the skin. Causes serious eye irritation.

Genotoxicity in vitro: Test type: Ames test. Test species: Salmonella typhimurium. Metabolic activation: with and without metabolic activation. Method: OECD Test Guideline 471. Result: negative.

Genotoxicity in vivo: Test type: Micronucleus test. Test species: Mouse. Cell type: Bone marrow. Method: OECD Test Guideline 474. Result: negative.

Carcinogenicity: Not classified based on available information.

Product: Carcinogenicity – Assessment: Methylene bisphenylisocyanate (MDI) aerosol has been reported to be irritating to lungs at a concentration of 1 mg/m³ with no effect observed at 0.2 mg/m³. Although MDI has been reported to cause an increase in non-carcinogenic lung tumors and a single carcinogenic lung tumor at very high concentrations (6 mg/m³), it is not classified as a carcinogen by IARC, NTP, or OSHA.

Reproductive toxicity: Not classified based on available information. STOT – single exposure: May cause respiratory irritation.

Components:

POLYMER: Exposure routes: Inhalation. Target Organs: Respiratory Tract. Assessment: May cause respiratory irritation.

4,4' -DIPHENYLMETHANE DIISOCYANATE: Exposure routes: Inhalation. Target Organs: Respiratory system. Assessment: May cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity: Not classified based on available information. Product: No data available.

4,4' -DIPHENYLMETHANE DIISOCYANATE: Remarks: Lung.

Carcinogenicity:

IARC: Group 2B: Possibly carcinogenic to humans. Talc, Cas # 14807-96-6

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

12. ECOLOGICAL INFORMATION (non-mandatory)

Ecotoxicity

Components:

POLYMER:

Toxicity to fish: LC 50 (*Oryzias latipes* (Japanese medaka)): >3,000 mg/l; Exposure time: 96 hr; Test Type: semi-static test; Remarks: Information given is based on data obtained from similar substances.

Toxicity to daphnia and other aquatic invertebrates: (*Daphnia magna* (Water flea)): >1,000 mg/l; Exposure time: 24 hrs; Test Type: static test; Method: OECD Test Guideline 202; Remarks: Information given is based on data obtained from similar substances.

Toxicity to algae: NOEC (*Desmodesmus subspicatus* (green algae)): 1,640 mg/l; End point: Growth inhibition; Exposure time: 72 hrs; Test Type: static test; Method: OECD Test Guideline 201; Remarks: Information given is based on data obtained from similar substances.

4,4' -DIPHENYLMETHANE DIISOCYANATE:

Toxicity to fish: LC 50 (*Oryzias latipes* (Orange-red killifish)): >3,000 mg/l; Exposure time: 96 hrs; Test Type: semi-static test; Remarks: Information given is based on data obtained from similar substances.

Toxicity to daphnia and other aquatic invertebrates: EC 50 (*Daphnia magna* (Water flea)): >100 mg/l; Exposure time: 24 hrs; Test Type: static test; Method: OECD Test Guideline 202; Remarks: Information given is based on data obtained from similar substances.

PROPYLENE CARBONATE:

Toxicity to fish: LC 50 (Cyprinus carpio (Carp)): >1,000 mg/l; Exposure time 96 hrs; Test Type: semi-static test; Method: Directive 67/548/EEC, Annex V, C.1.

Toxicity to daphnia and other aquatic invertebrates: EC 50 (Daphnia magna (Water flea)): >1,000 mg/l; Exposure time: 48 hrs; Test Type: static test; Method: OECD Test Guideline 202.

Toxicity to algae: EC 50 (Desmodesmus subspicatus (green algae)): >900 mg/l; End point: Growth inhibition; Exposure time: 72 hrs; Test Type: static test; Method: OECD Test Guideline 201; NOEC (Desmodesmus subspicatus (green algae)): 900 mg/l; End point: Growth inhibition; Exposure time: 72 hrs; Test Type: static test; Method: OECD Test Guideline 201.

Persistence and degradability**POLYMER:**

Biodegradability: Result: Not readily biodegradable. Biodegradation: 0%. Exposure time: 28 days. Method: OECD Test Guideline 302C.

4,4' -DIPHENYLMETHANE DIISOCYANATE:

Biodegradability: Result: Not biodegradable. Biodegradation: 0%. Exposure time 28 days. Method: OECD Test Guideline 302C. Remarks: Information given is based on data obtained from similar substances.

PROPYLENE CARBONATE:

Biodegradability: Result: Readily biodegradable. Biodegradation: 87.1%. Exposure time: 299 days. Method: OECD Test Guideline 301B.

Bioaccumulative potential**PROPYLENE CARBONATE:**

Partition coefficient: N-octanol/water: log Pow: -0.41. Mobility in soil: No data available. Other adverse effects: No data available.

Additional ecological information: No data available.

13. DISPOSAL CONSIDERATIONS (non-mandatory)

Disposal: Any disposal practice must be in compliance with all federal, state, and local laws and regulations. Chemical additions, processing, storage, or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate, or otherwise inappropriate. Waste characterization and disposal compliance is the responsibility solely of the party generating the waste or deciding to discard or dispose of the material. Refer to RCRA 4 CFR 261 and/or any other appropriate federal, state, or local requirements for proper classification information.

Container Disposal: Drums/containers must be thoroughly drained to process or storage vessels before removal to an appropriate area for subsequent decontamination. Drums/containers must be decontaminated in properly ventilated areas by personnel protected from the inhalation of isocyanate vapors. Spray or pour 1 to 5 gallons of decontamination solution into the drum making sure the walls are well rinsed. Let the drum/container soak unsealed for 48 hours. Pour out the decontamination solution and triple rise the empty container. Puncture or otherwise destroy the rinsed container before disposal. Do not heat or cut empty containers with electric or gas torch.

RCRA/EPA Waste Information: The generation of waste should be avoided or minimized whenever possible. Chemical waste, even small quantities, should never be poured down drains, sewers, or waterways.

14. TRANSPORT INFORMATION (non-mandatory)

MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

Not dangerous goods

INTERNATIONAL MARITIME DANGEROUS GOODS

Not dangerous goods

TRANSPORT CANADA - INLAND WATERWAYS

Not dangerous goods

TRANSPORT CANADA - RAIL

Not dangerous goods

TRANSPORT CANADA - ROAD

Not dangerous goods

U.S. DOT - INLAND WATERWAYS

Not dangerous goods

U.S. DOT - RAIL

Not dangerous goods

U.S. DOT - ROAD

Not dangerous

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Marine pollutant: no

15. REGULATORY INFORMATION (non-mandatory)

EPCRA – Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Component	Component RQ (lbs)	Calculated product RQ (lbs)
4,4'-Diphenylmethane Diisocyanate CAS # 101-68-8	5000	14206.159791

SARA 311/312 Hazards: Acute Health Hazard. Chronic Health Hazard.

SARA 313 Components: 4,4'-Diphenylmethane (Cas # 101-68-8) 35.51% diisocyanate

California Prop 65: WARNING! This product contains a chemical known to the State of California to cause cancer: Quartz / Sand (14808-60-7).

The components of this product are reported in the following inventories:

TSCA: On TSCA inventory

DSL: This product contains one or several components that are not on the Canadian DSL and have annual quantity limits.

AUSTR: On the inventory, or in compliance with the inventory.

ENCS: Not in compliance with the inventory.

KECL: On the inventory, or in compliance with the inventory.

PICCS: On the inventory, or in compliance with the inventory.

IECSC: On the inventory, or in compliance with the inventory.

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA).

Registration: Trade Secret

Chemical Name	Identification Number
Polymer	254504001-5759
Scavenger	254504001-5709
Urethane Prepolymer	8009865572P

16. OTHER INFORMATION

This information provided on this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designated only as a guide for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

1. PRODUCT IDENTIFICATION

Trade Name(s): Fast Set Gray--Part B

Product Description: Curative

Synonyms: N/A

CAS No: N/A

Supplier:

EPRO Services, Inc.

PO Box 347

Derby, KS 67037

800-882-1896 (8:00am – 5:00pm CST)

2. HAZARD(S) IDENTIFICATION

Information on likely routes of exposure: Inhalation. Skin contact. Eye Contact. Ingestion.

Skin Contact: No irritation is likely to develop following short contact periods with skin. Prolonged or repeated exposure can cause skin irritation, reddening, dermatitis and in some individuals, sensitization. Skin contact may result in allergic skin reactions or respiratory sensitization but is not expected to result in absorption or amounts sufficient to cause other adverse effects.

Eye Contact: As a liquid or dust may cause irritation, inflammation and or damage to sensitive eye tissue. Corneal injury is unlikely.

Ingestion: Can result in irritation and corrosive action in mouth, stomach tissue and digestive tract.

Inhalation: Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Prolonged or repeated breathing of dust may result in progressive and permanent lung disease (fibrosis) which may cause death from respiratory and/or heart failure. Symptoms include coughing and difficult breathing which becomes worse with physical activity.

Precautionary Statements: Do not handle until all safety precautions have been read and understood. Do not breathe vapors. In case of inadequate ventilation wear respiratory protection. Wear protective gloves and eye protection. Do not eat, drink, or smoke when using this product. Wash thoroughly after handling. Store locked up. Keep away from children. Dispose of contents and container in accordance with applicable local, regional, and national regulations.

Signal Word: WARNING



Carcinogenicity (Inhalation): Category 2

Reproductive toxicity: Category 2

Hazard Statement: Suspected of causing cancer if inhaled. Suspected of damaging fertility or the unborn child.

Persons with known respiratory or allergy problems must not be exposed to this product.

Carcinogenicity: This product may contain non-asbestiform talc. Inhalation of non-asbestiform talc has been shown to cause lung and adrenal cancer in female rats and adrenal gland cancer in male rats. It did not cause cancer in male or female mice similarly exposed. Talc is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

Warning: Our products may contain trace amounts of some chemicals considered by the State of California (Proposition 65) to be carcinogens or reproductive toxicants. www.P65Warnings.ca.gov

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Classification	Concentration
Talc Cas# 14807-96-6	This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012)	22.73%
Piperazine Cas# 110-85-0	Flam. Sol. 1; H228 – Skin Corr. 1B; H314 – Eye Dam. 1; H318 Resp. Sens. 1B; H334 – Skin Sens. 1B; H317 – Repr. 2; H361	0.76%
Carbon Black Cas# 1333-86-4	Carc. 2; H351	0.15%

4. FIRST-AID MEASURES

Eyes: Open lids wide and flush with large quantities of water for at least 15 minutes. Remove contact lenses if present and easy to remove. Protect unharmed eye. If eye irritation persists, consult a specialist.

Skin: First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Consult a physician if irritation continues after washing or if swelling or rash develops.

Ingestion: Seek medical attention. Do not induce vomiting unless directed to do so by medical personnel. (Never give anything by mouth to an unconscious person.) Do not give milk or alcoholic beverages.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility immediately.

Note to Physician: Most important symptoms and effects, both acute and delayed: No symptoms known or expected. Suspected of causing cancer if inhaled. Suspected of damaging fertility or the unborn child.

Hazards: No information available.

Treatment: No information available.

5. FIRE-FIGHTING MEASURES

Flashpoint and Method: (>)200.1 °F | 93.4 °C, Seta closed cup

Extinguishing Media: Water mist, Carbon dioxide (CO₂), Dry chemical, Foam

Protective equipment: In case of fire, avoid breathing smoke, use normal fire-fighting equipment including a NIOSH approved, self-contained breathing apparatus (SCBA). Use water to cool fire exposed surfaces and containers. (avoid spreading burning liquid with water used for cooling purposes).

Hazardous combustion products: Toxic fumes, Aldehydes, Ketones, carbon dioxide and carbon monoxide, halogenated hydrocarbons

Unsuitable extinguishing media: High volume water jet. DO NOT direct a solid stream of water or foam into hot, burning pools of liquid since this may cause frothing and increase fire intensity.

NFPA Flammable and Combustible Liquids Classification: Combustible Liquid Class III B

6. ACCIDENTAL RELEASE MEASURES

Spill: Evacuate spill area. With adequate ventilation and appropriate personal protective equipment, cover the area with an inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). and transfer to metal waste containers.

Clean up: Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or other absorbent material and shoveled into containers.

Disposal: Any disposal practice must be in compliance with all federal, state, and local laws and regulations. Chemical additions, processing, storage, or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate, or otherwise inappropriate. Waste characterization and disposal compliance is the responsibility solely of the party generating the waste or deciding to discard or dispose of the material. Refer to RCRA 40 CFR 261 and/or any other appropriate federal, state, or local requirements for proper classification information.

Container Disposal: Drums/containers must be thoroughly drained to process or storage vessels before removal to an appropriate area for subsequent decontamination. Drums/containers must be decontaminated in properly ventilated areas by personnel protected from the inhalation of isocyanate vapors. Spray or pour 1 to 5 gallons of decontamination solution into the drum making sure the walls are well rinsed. Let the drum/container soak unsealed for 48 hours. Pour out the decontamination solution and triple rise the empty container. Puncture or otherwise destroy the rinsed container before disposal. Do not heat or cut empty containers with electric or gas torch.

7. HANDLING AND STORAGE

Storage: When stored between 60°F and 85°F (15° and 30°C) in sealed containers, typical shelf life is 6 months or more from the date of manufacturer. Store containers tightly closed in a cool, dry, and well-ventilated area, away from incompatible substances.

Handling: Use personal protective equipment when transferring material to or from drums, totes, or other containers. Safety glasses and gloves are the minimum protection. Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Avoid contact with skin and eyes. Smoking, eating, and drinking should be prohibited in the application area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	Value Type (form of exposure)	Control Parameters (permissible concentration)	Basis
Talc Cas # 14807-96-6	TWA	2 mg/m3 Respirable fraction	ACGIH
	REL	2 mg/m3 Respirable fraction	NIOSH/GUIDE
	TWA	0.1 mg/m3 Respirable fraction	Z3
	TWA	0.3 mg/m3 Total dust	Z3
Carbon Black Cas # 1333-86-4	REL	0.1 mg/m3	NIOSH/GUIDE
	REL	3.5 mg/m3	NIOSH/GUIDE
	PEL	3.5 mg/m3	OSHA_TRANS
	TWA	3 mg/m3 Inhalable fraction	ACGIH
Piperazine Cas # 110-85-0	TWA	0.03 ppm Inhalable fraction and vapor (as piperazine)	ACGIH
	TWA	0.03 ppm Inhalable fraction and vapor (as piperazine)	ACGIHLIS_P

Engineering measures: Providesufficientmechanical(generaland/orlocalexhaust)ventilationtomaintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected, or apparent adverse effects.

Personal protective equipment

Respiratory protection: In the case of vapor formation use a respirator with an approved filter. A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

Hand protection: Material: polyethylene. Remarks: The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection: Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.

Skin and body protection: Wear as appropriate: impervious clothing and safety shoes. Choose body protection according to the amount and concentration of the dangerous substance at the workplace. Wear resistant gloves (consult your safety equipment supplier).

Hygiene measures: Wash hands before breaks and at the end of workday. When using do not eat, drink, or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

VP: 3 hPa (25°C) Calculated Vapor Pressure

VD: (>) 1 (AIR = 1)

Color: Black

Flash Point: >200.1°F – 93.4°C, Seta closed cup

Solubility in Water: No data available

Density: 1.23 g/cm³ (77.00°F)

Evaporation Rate: 1 (Ethyl Ether)

Boiling Point: No data

Appearance: Liquid

Viscosity: No data available

10. STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.

Reactivity: None known

Hazardous Decomposition Products: No hazardous decomposition products are known.

Thermal Decomposition: No data

Incompatible products: Strong acids, alkalis, isocyanates, strong oxidizing agents, phosphorus compounds.

Conditions to avoid: Heat and exposure to moisture.

Possibility of hazardous reactions: Product will not undergo hazardous polymerization.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure: Inhalation, skin contact, eye contact, ingestion

Acute toxicity: Not classified based on available information.

Components:

PIPERAZINE:

Acute oral toxicity: LD 50 (RAT): ca. 2,600 mg/kg. Method: OECD Tet Guideline 401.

Acute inhalation toxicity: LC 50 (Rat, male and female): 1.61 mg/l. Exposure time: 8 hrs. Tet atmosphere: vapor.

CARBON BLACK:

Acute oral toxicity: LD 50 (Rat): > 10,000 mg/kg

Acute dermal toxicity: LD 50 (Rabbit): >3 g/kg

Skin corrosion/irritation: Not classified based on available information.

TALC: Result: Possibly irritating to skin. Possibly irritating to eyes.

PIPERAZINE: Result: Corrosive after 3 minutes to 1 hour of exposure. Corrosive to eyes.

CARBON BLACK: Result: Not irritating to skin. Serious eye damage/eye irritation. Not classified based on available information. Product: Remarks: Unlikely to cause eye irritation or injury.

Respiratory or skin sensitization

Skin sensitization: Not classified based on available information.

Respiratory sensitization: Not classified based on available information.

PIPERAZINE: Assessment: The product is a respiratory sensitizer, sub-category 1B. Assessment: The product is a skin sensitizer, sub-category 1B.

Germ cell mutagenicity: Not classified based on available information.

Carcinogenicity: Suspected of causing cancer if inhaled.

CARBON BLACK:

Carcinogenicity: Limited evidence of carcinogenicity in inhalation studies with animals.

Reproductive toxicity: Suspected of damaging fertility or the unborn child.

PIPERAINE:

Reproductive toxicity: Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.

STOT – single exposure: Not classified based on available information.

STOT – repeated exposure: Not classified based on available information.

Aspiration toxicity: Not classified based on available information.

CARCINOGENICITY:

IARC: Group 2B: Possibly carcinogenic to human (Talc and Carbon Black)

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

12. ECOLOGICAL INFORMATION (non-mandatory)

Ecotoxicity

PIPERAZINE:

Toxicity to fish: LC 50 (Poecilia reticulata (guppy)): >1,800 mg/l. Exposure time 96 hrs.

Toxicity to daphnia and other aquatic invertebrates: EC 50 (Water flea (Daphnia magna)): 21 mg/l. Exposure time: 48 hrs. Method: OECD Tet Guideline 202.

Toxicity to algae: EC 50 (Pseudokirchneriella subcapitata (green algae)): >1,000 mg/l. Exposure time: 72 hrs. Method: OECD Test Guideline 201.

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity): NOEC (Water flea (Daphnia magna)): 12.5 mg/l. Exposure time: 21 days. Method: OECD Test Guideline 211.

Persistence and degradability

PIPERAZINE:

Biodegradability: Result: Readily biodegradable. Biodegradation: 70%. Exposure time: 28 days. Method: OECD Test Guideline 301F.

Bioaccumulative potential

PIPERAZINE:

Partition coefficient: noctanol/water : log POW: -1.17.

Mobility in soil: No data available.

Other adverse effects: No data available.

Product:

Additional ecological information: No data available.

13. DISPOSAL CONSIDERATIONS (non-mandatory)

Disposal: Any disposal practice must be in compliance with all federal, state, and local laws and regulations. Chemical additions, processing, storage, or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate, or otherwise inappropriate. Waste characterization and disposal compliance is the responsibility solely of the party generating the waste or deciding to discard or dispose of the material. Refer to RCRA 4 CFR 261 and/or any other appropriate federal, state, or local requirements for proper classification information.

Container Disposal: Drums/containers must be thoroughly drained to process or storage vessels before removal to an appropriate area for subsequent decontamination. Drums/containers must be decontaminated in properly ventilated areas by personnel protected from the inhalation of isocyanate vapors. Spray or pour 1 to 5 gallons of decontamination solution into the drum making sure the walls are well rinsed. Let the drum/container soak unsealed for 48 hours. Pour out the decontamination solution and triple rise the empty container. Puncture or otherwise destroy the rinsed container before disposal. Do not heat or cut empty containers with electric or gas torch.

RCRA/EPA Waste Information: The generation of waste should be avoided or minimized whenever possible. Chemical waste, even small quantities, should never be poured down drains, sewers, or waterways.

14. TRANSPORT INFORMATION (non-mandatory)

DOT (Domestic surface): Shipping name; Compound resin. Not regulated (Class 55)

International transport regulations

U.S. DOT – ROAD

Not dangerous goods

U.S. DOT - RAIL

Not dangerous goods

U.S. DOT - INLAND WATERWAYS

Not dangerous goods

TRANSPORT CANADA - ROAD

Not dangerous goods

TRANSPORT CANADA - RAIL

Not dangerous goods

TRANSPORT CANADA - INLAND WATERWAYS

Not dangerous goods

INTERNATIONAL MARITIME DANGEROUS GOODS

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

Not dangerous goods

MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

Not dangerous goods

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Marine pollutant: no

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

15. REGULATORY INFORMATION (non-mandatory)

SARA 311/312 Hazards: Chronic Health Hazard

SARA 313 Components: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop 65 Warning: This product contains a chemical known to the State of California to cause cancer.

Carbon Black – 1333-86-4

Quartz / Sand – 14808-60-7

Furan – 110-00-9

Propylene Oxide – 75-56-9

Acetaldehyde – 75-07-0

The components of this product are reported in the following inventories:

TSCA: On the inventory, or in compliance with the inventory

DSL: All components of this product are on the Canadian DSL

AUSTR: On the inventory, or in compliance with the inventory

ENCS: On the inventory, or in compliance with the inventory

KECL: On the inventory, or in compliance with the inventory

PICCS: Not in compliance with the inventory

IECSC: On the inventory, or in compliance with the inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZLoC (New Zealand), PICCS (Philippines), TSCA (USA).

16. OTHER INFORMATION

This information provided on this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designated only as a guide for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.