

**AV-202® MULTIGROUT****SECTION 1. IDENTIFICATION**

|   |   |
|---|---|
| <b>Product Identifier</b>               | AV-202 MULTIGROUT   |
| <b>Other Means of Identification</b>    | Hydrophilic Grout   |
| <b>Other Identification</b>             | HYDROPHILIC POLYURETHANE FOAM   |
| <b>Recommended Use</b>                  | Industrial Use Only.  |
| <b>Restrictions on Use</b>              | None known.   |
| <b>Manufacturer/Supplier Identifier</b> | Avanti International, 822 Bay Star Blvd, Webster, TX, 77598, USA, 281.486.5600, avantigrout.com |
| <b>Emergency Phone No.</b>              | ChemTrec, 800.424.9300  |
| <b>Date of Preparation</b>              | March 09, 2018  |

**SECTION 2. HAZARD IDENTIFICATION**

Classified according to the US Hazard Communication Standard (HCS 2012) and Canada's Hazardous Products Regulations (WHMIS 2015).

**Classification**

Acute toxicity (Inhalation) - Category 4; Skin irritation - Category 2; Respiratory sensitization - Category 1; Skin sensitization - Category 1; Carcinogenicity - Category 2; Specific target organ toxicity (single exposure) - Category 3; Specific target organ toxicity (repeated exposure) - Category 1

**Label Elements**

Signal Word:

Danger

Hazard Statement(s):

|      |   |
|------|---|
| H332 | Harmful if inhaled.   |
| H315 | Causes skin irritation.   |
| H317 | May cause an allergic skin reaction.  |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled.                      |
| H351 | Suspected of causing cancer.  |
| H372 | Causes damage to organs (respiratory system) through prolonged or repeated exposure if inhaled. |

Precautionary Statement(s):

Prevention:

|      |   |
|------|---|
| P201 | Obtain special instructions before use.                                   |
| P202 | Do not handle until all safety precautions have been read and understood. |
| P261 | Avoid breathing dust/fume/gas/mist/vapours/spray.                         |
| P264 | Wash hands and skin thoroughly after handling.                            |
| P270 | Do not eat, drink or smoke when using this product.                       |
| P272 | Contaminated work clothing must not be allowed out of the workplace.      |
| P280 | Wear protective gloves.   |

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P284 In case of inadequate ventilation wear respiratory protection (NIOSH approved air-purifying respirator with N100, R100, or P100 filter; NIOSH approved air-purifying respirator with an organic vapour cartridge).

Response:

P302 + P352 IF ON SKIN: Wash with plenty of water/  
Soap

P304 + P341 IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

P333 + P313 If skin irritation or rash occurs: Get medical advice or attention.

P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTRE or doctor.

P362 + P364 Take off contaminated clothing and wash it before reuse.

Disposal:

P501 Dispose of contents and container in accordance with local, regional, national and international regulations.

#### Other Hazards

None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

| Chemical Name                       | CAS No.   | %   | Other Identifiers | Other Names |
|-------------------------------------|-----------|-----|-------------------|-------------|
| Polymethylene polyphenyl isocyanate | 9016-87-9 | 20  | PMDI              |             |
| Propylene carbonate                 | 108-32-7  | 4   | PC                |             |
| Toluene-2,4-diisocyanate            | 584-84-9  | 0.5 | 2,4-TDI           |             |

### SECTION 4. FIRST-AID MEASURES

#### First-aid Measures

##### Inhalation

Remove source of exposure or move to fresh air. Get medical advice or attention if you feel unwell or are concerned.

##### Skin Contact

Avoid direct contact. Wear chemical protective clothing if necessary. Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes.

##### Eye Contact

Avoid direct contact. Wear chemical protective gloves if necessary. Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open.

##### Ingestion

Rinse mouth with water.

#### Most Important Symptoms and Effects, Acute and Delayed

If inhaled: can irritate the nose and throat.

#### Immediate Medical Attention and Special Treatment

##### Target Organs

Respiratory system.

##### Special Instructions

Not applicable.

##### Medical Conditions Aggravated by Exposure

Asthma, respiratory conditions.

### SECTION 5. FIRE-FIGHTING MEASURES

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## Extinguishing Media

### Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire.

### Unsuitable Extinguishing Media

None known.

## Specific Hazards Arising from the Product

Not sensitive to static discharge.

In a fire, the following hazardous materials may be generated: very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides; very toxic polycyclic aromatic hydrocarbons.

### Special Protective Equipment and Precautions for Fire-fighters

Knock down vapours or gases with water fog or fine water spray.

Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment, and Emergency Procedures

Get expert advice. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment.

### Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

### Methods and Materials for Containment and Cleaning Up

Small spills or leaks: stop or reduce leak if safe to do so. Contain and soak up spill with absorbent that does not react with spilled product. Large spills or leaks: dike spilled product to prevent runoff. Get expert advice before treating the spilled product with other chemicals to make it less hazardous. Store recovered product in suitable containers that are: tightly-covered.

### Other Information

Contact supplier, local fire and emergency services for help.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Obtain special instructions before use. Prevent skin contact. Do not get in eyes. Prevent uncontrolled release of product. Immediately report leaks, spills or failures of the safety equipment (e.g. ventilation system). Wear personal protective equipment to avoid direct contact with this chemical. General hygiene considerations: do NOT eat, drink or store food in work areas. Consider using a double locker-shower facility. Wash hands thoroughly after handling this product and before eating, using the washroom or leaving work area. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

### Conditions for Safe Storage

Store in an area that is: ventilated.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

| Chemical Name                       | ACGIH TLV® |           | OSHA PEL |          | AIHA WEEL |     |
|-------------------------------------|------------|-----------|----------|----------|-----------|-----|
|                                     | TWA        | STEL      | TWA      | Ceiling  | 8-hr TWA  | TWA |
| Polymethylene polyphenyl isocyanate | 0.005 ppm  |           |          | 0.02 ppm |           |     |
| Toluene-2,4-diisocyanate            | 0.001 ppm  | 0.005 ppm |          |          |           |     |

### Appropriate Engineering Controls

Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

### Individual Protection Measures

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### Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

### Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Suitable materials are: Chemical Resistant Gloves: butyl rubber, neoprene rubber, nitrile rubber, Viton®/butyl rubber, Barrier® (PE/PA/PE).

### Respiratory Protection

Wear a NIOSH approved air-purifying respirator with N100, R100, or P100 filter(s). And wear a NIOSH approved air-purifying respirator with an organic vapour cartridge. Either full-face piece or half-face piece with splash goggles.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

|   |  |
|---|--|
| <b>Appearance</b>                                       | Dark brown viscous liquid. Absorbs moisture from the air. Particle Size: Not available |
| <b>Odour</b>  | Aromatic   |
| <b>Odour Threshold</b>                                  | Not available  |
| <b>pH</b>   | 5.5 - 7.0  |
| <b>Melting Point/Freezing Point</b>                     | Not available (melting); Not available (freezing)                                      |
| <b>Initial Boiling Point/Range</b>                      | Not available  |
| <b>Flash Point</b>                                      | Not available  |
| <b>Evaporation Rate</b>                                 | Not available  |
| <b>Flammability (solid, gas)</b>                        | Not available  |
| <b>Upper/Lower Flammability or Explosive Limit</b>      | Not available (upper); Not available (lower)   |
| <b>Vapour Pressure</b>                                  | Not available  |
| <b>Vapour Density (air = 1)</b>                         | Not available  |
| <b>Relative Density (water = 1)</b>                     | 1.14 at 68 °F (20 °C)  |
| <b>Solubility</b>                                       | Not applicable in water; Moderately soluble in common organic solvents.                |
| <b>Partition Coefficient, n-Octanol/Water (Log Kow)</b> | Not available  |
| <b>Auto-ignition Temperature</b>                        | Not available  |
| <b>Decomposition Temperature</b>                        | Not available  |
| <b>Viscosity</b>  | Not available (kinematic); 3200 - 6000 centipoises (dynamic)                           |
| <b>Other Information</b>                                |  |
| <b>Physical State</b>                                   | Liquid   |
| <b>Molecular Formula</b>                                | Not applicable   |
| <b>Molecular Weight</b>                                 | Not available  |
| <b>Bulk Density</b>                                     | Not available  |
| <b>Surface Tension</b>                                  | Not available  |
| <b>Critical Temperature</b>                             | Not available  |
| <b>Electrical Conductivity</b>                          | Not available  |
| <b>Vapour Pressure at 50 deg C</b>                      | Not available  |
| <b>Saturated Vapour Concentration</b>                   | Not available  |

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

None known.

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**Chemical Stability**

Normally stable.

**Possibility of Hazardous Reactions**

None expected under normal conditions of storage and use.

**Conditions to Avoid**

Water, moisture or humidity. Alkaline conditions (high pH).

**Incompatible Materials**

Polymerizes on contact with: alkanolamines (e.g. triethanolamine), alcohols (e.g. ethanol), amines (e.g. triethylamine), glycols (e.g. ethylene glycol), water.

Not corrosive to metals.

**Hazardous Decomposition Products**

None known.

**SECTION 11. TOXICOLOGICAL INFORMATION****Likely Routes of Exposure**

Skin contact; eye contact; ingestion.

**Acute Toxicity**

| Chemical Name                       | LC50                                      | LD50 (oral)         | LD50 (dermal)          |
|-------------------------------------|---|---------------------|------------------------|
| Polymethylene polyphenyl isocyanate | 2 mg/L (rat) (aerosol)                    | > 10000 mg/kg (rat) | > 9400 mg/kg (rabbit)  |
| Propylene carbonate                 |   | 29100 mg/kg (rat)   | > 26400 mg/kg (rabbit) |
| Toluene-2,4-diisocyanate            | 0.1 mg/L (rat) (4-hour exposure) (vapour) | 6170 mg/kg (rat)    | > 16000 mg/kg (rabbit) |

Oral ATEmix = 45,076 mg/kg

Dermal ATEmix = 43,282 mg/kg

Inhalation ATEmix = 6.7 mg/L (4-hour exposure) (vapour)

**Skin Corrosion/Irritation**

May cause mild irritation based on information for closely related chemicals.

**Serious Eye Damage/Irritation**

May cause serious eye irritation based on information for closely related materials.

**STOT (Specific Target Organ Toxicity) - Single Exposure****Inhalation**

May be harmful based on information for closely related materials.

**Skin Absorption**

May be harmful based on information for closely related materials.

**Ingestion**

Not harmful based on information for closely related materials.

**Aspiration Hazard**

No information was located.

**STOT (Specific Target Organ Toxicity) - Repeated Exposure**

May cause irritation of the respiratory system. May cause respiratory tract injury. (Toluene-2,4-diisocyanate)

**Respiratory and/or Skin Sensitization**

May cause an allergic reaction (skin sensitization) based on information for closely related chemicals. May cause severe asthma-like symptoms (respiratory sensitization) based on information for closely related chemicals. (Toluene-2,4-diisocyanate)

**Carcinogenicity**

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| Chemical Name                       | IARC     | ACGIH®         | NTP                    | OSHA       |
|-------------------------------------|----------|----------------|------------------------|------------|
| Polymethylene polyphenyl isocyanate | Group 3  | Not designated | Not Listed             | Not Listed |
| Toluene-2,4-diisocyanate            | Group 2B | A3             | Reasonably anticipated | Not Listed |

#### Reproductive Toxicity

##### Development of Offspring

No information was located.

##### Sexual Function and Fertility

No information was located.

##### Effects on or via Lactation

No information was located.

#### Germ Cell Mutagenicity

No information was located.

#### Interactive Effects

No information was located.

## SECTION 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

No information was located.

#### Acute Aquatic Toxicity

| Chemical Name                       | LC50 Fish | EC50 Crustacea                          | ErC50 Aquatic Plants   | ErC50 Algae |
|-------------------------------------|-----------|---|--|-------------|
| Polymethylene polyphenyl isocyanate |           | > 500 mg/L (Daphnia magna (water flea)) | 1640 mg/L (Desmodesmus subspicatus (algae); 72-hour; static) |             |

#### Persistence and Degradability

No information was located.

#### Bioaccumulative Potential

No information was located.

#### Mobility in Soil

No information was located.

#### Other Adverse Effects

There is no information available.

## SECTION 13. DISPOSAL CONSIDERATIONS

#### Disposal Methods

Dispose of contents and container in accordance with local, regional, national and international regulations.

## SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations.

**Environmental Hazards** Not applicable

**Special Precautions** Not applicable

**Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code**

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Not applicable

## SECTION 15. REGULATORY INFORMATION

### Safety, Health and Environmental Regulations

#### USA

##### Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

##### Additional USA Regulatory Lists

California Proposition 65: WARNING: This product can expose you to Toluene Diisocyanate, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

#### Canada

##### Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL/NDSL.

## SECTION 16. OTHER INFORMATION

**NFPA Rating**                      **Health - 1**    **Flammability - 1**                      **Instability - 0**

**SDS Prepared By**                Avanti International

**Date of Preparation**            March 09, 2018

**Date of Last Revision**        June 06, 2019

**Revision Indicators**         Not applicable.

**Key to Abbreviations**        ACGIH® = American Conference of Governmental Industrial Hygienists  
IARC = International Agency for Research on Cancer  
NFPA = National Fire Protection Association    NIOSH = National Institute for Occupational Safety and Health  
OSHA = US Occupational Safety and Health Administration  
RTECS® = Registry of Toxic Effects of Chemical Substances  
NTP = National Toxicology Program

**References**                      CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).  
HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS). NIOSH Pocket Guide database. National Institute for Occupational Safety and Health. Available from Canadian Centre for Occupational Health and Safety (CCOHS). Registry of Toxic Effects of Chemical Substances (RTECS®) database. Dassault Systèmes/BIOVIA ("BIOVIA"). Available from Canadian Centre for Occupational Health and Safety (CCOHS).

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Product Identifier:                AV-202 MULTIGROUT - Ver. 1

Date of Preparation:             March 09, 2018

Date of Last Revision:         June 06, 2019