# SAFETY DATA SHEET

**PRODUCT NAME**: Avonite Surfaces Ultra-Bond G Part A
**MSDS ISSUE DATE:** 3/11/09
**SDS REVISION DATE:** 3/27/14

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**1.1 PRODUCT NAME:** Avonite Surfaces Ultra-Bond G
**Synonyms:** Solid Surface Adhesive (Part A – in the bigger tube)
**Chemical Name:** Mixture

**1.2 PRODUCT USE:** Solid Surface Adhesive

**1.3 MANUFACTURER:**

**Aristech Surfaces LLC**
**7350 Empire Dr.**
**Florence, KY 41042**

**1.4 CONTACT INFORMATION**

**Email:** info@aristechsurfaces.com

**Emergency Phone:** **Fax:** (859)-283-7378
(859)- 283-1501 (8AM- 5PM Mon-Fri)
CHEMTREC-(800)- 424-9300 (Off-Hour Emergencies); CCN 1676

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1 CLASSIFICATION OF SUBSTANCE:

***PRODUCT* Classification Information:** Not Classified.

***INGREDIENT* Classification Information:**

***Preliminary Statement:***
**These classifications/hazards are pertaining to the constituents of the marketed product.**

**Classification according to Regulation (EC) No 1272/2008[CLP]:**

**Eye Irritation - Category 2**
**Hazardous to the Aquatic Environment (Chronic) - Category 2**
**Reproductive Toxicity - Category 1B**
**Skin Irritation - Category 2**
**Skin Sensitization - Category 1**
**Specific Target Organ Toxicity (Single Exposure) - Category 3**

### 2.2 LABEL ELEMENTS:

**DANGER!!!**

**FLAMMABLE - IRRITANT - HAZARDOUS - TOXIC**

**Signal Word:** DANGER!

**Relevant Routes of Exposure:** Inhalation, eye, skin and ingestion.

**CLP/GHS Statements:**

- **Hazard Statement(s):**

  - H225 Highly Flammable liquid and vapor
  - H315 Causes skin irritation
  - H317 May cause an allergic skin reaction
  - H319 Causes serious eye irritation
  - H335 May cause respiratory irritation
  - H360 May damage fertility or the unborn child
  - H411 Toxic to aquatic life with long lasting effects

- **Precautionary statement(s):**

  **Prevention:**

  - P202 Do not handle until all safety precautions have been read and understood.
  - P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
  - P233 Keep container tightly closed.
  - P240 Ground/bond container and receiving equipment.
  - P242 Use only non-sparking tools.
  - P243 Take precautionary measures against static discharge.
  - P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
  - P264 Wash skin thoroughly after handling.
  - P270 Do not eat, drink or smoke when using this product.
  - P271 Use only outdoors or in a well-ventilated area.
  - P272 Contaminated work clothing should not be allowed out of the workplace.
  - P273 Avoid release to the environment.
  - P281 Use personal protective equipment as required.

  **Response:**

  - P301+P312 P301 + P312 IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell.
  - P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.
  - P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
  - P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - P308 + P313 IF exposed or concerned: Get medical advice/attention.
  - P312 Call a POISON CENTER or doctor/physician if you feel unwell.
  - P333 + P313 IF SKIN irritation or rash occurs: Get medical advice/attention.
  - P337 + P313 IF eye irritation persists: Get medical advice/attention
  - P362 Take off contaminated clothing and wash before reuse.
  - P370 + P378 In case of fire: Use water or dry chemicals for extinction.
  - P391 Collect spillage. Hazardous to the aquatic environment

**Storage:**

- P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
- P405 + P235 Store locked up. Keep cool.

**Disposal:**

- P501 Dispose of in accordance with local, state and federal requirements. Methyl methacrylate (MMA) is specifically listed as a RCRA U162 hazardous waste and mixtures may meet the criteria of ignitability D001.
    - Important Disposal Information:
      Rags, steel wool and waste soaked with this product may spontaneously catch fire if improperly discarded or stored. To avoid a spontaneous combustion fire, immediately after use, place rags, steel wool or waste in a sealed, water-filled, metal container.

## SECTION 3: COMPOSITION/ INFORMATION ON INGREDIENTS

### 3.1 COMPOSITION:

| Ingredient Name | CAS # | EC # | % WT | DSD Classification | CLP/GHS Classification |
|---|---|---|---|---|---|
| **Ultra-Bond G*** | **Mixture** | **Mixture** | **100** | **Not Classified** | **Not Classified** |
| Fillers and miscellaneous non-hazardous ingredients | N/A | N/A | <40 | Not Classified | Not Classified |
| Methyl methacrylate | 80-62-6 | 201-297-1 | 30-60 | F; Xi;<br>R11; R37/38<br>S02; S24<br>S37; S46 | Flam. Liq. 2 H225<br>Skin Irrit. 2 H315<br>Skin Sens. 1 H317<br>STOT SE 3 H335<br>  <br>DANGER! |
| Paraffin wax | 64742-43-4 | 265-145-6 | 1 -5 | Not Classified | Aquatic Chronic 4 H413<br>Eye Irrit. 2 H319<br>  <br>WARNING! |
| Trimethylolpropane, trimethacrylate esters | 3290-92-4 | 221-950-4 | 1-5 | Not Classified | Aquatic Chronic 2 H411<br>Skin Sens. 1 H317<br>Skin Irrit. 2 H315<br>Eye Irrit. 2 H319<br>Repr. 1B H360(Oral)<br>STOT SE 3 H335(data lacking)<br>  <br>WARNING! |

* Mixture. Chemicals that follow this listed chemical are part of the listed mixture.

## SECTION 4: FIRST AID MEASURES

### 4.1 DESCRIPTION OF FIRST AID MEASURES:

**General notes:**
Consult a physician. Show this safety data sheet to the doctor in attendance.

**Relevant Routes of Exposure:** Inhalation, eye, skin and ingestion.

**Inhalation:**
Remove from exposure. If breathing is difficult, administer artificial respiration (mouth-to-mouth) or oxygen as indicated. Call a physician immediately

**Skin Contact:**
Remove contaminated clothing. Wash skin thoroughly with soap and plenty of water. If irritation or sensitization occurs or persists, call a physician.

**Eye Contact:**
Flush immediately with large amount of water for at least 15 minutes. Ensure adequate flushing of the eyes by separating the eyelids with the fingers. Call a physician or poison control center, immediately.

**Ingestion:**
DO NOT INDUCE VOMITING! Rinse mouth immediately with plenty of water. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. Call a physician or poison control center, immediately.

## SECTION 5: FIRE-FIGHTING MEASURES

### 5.1 EXTINGUISHING MEDIA:
Water spray, dry chemicals, carbon dioxide or foam may be used to extinguish fire.

### 5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANTS OR MIXTURE:
Water or foam may cause frothing. Vapors are heavier than air and may travel to a source of ignition and cause a flash back. Sealed containers may explode upon exposure to excessive heat and fire situations.

### 5.3 ADVICE FOR FIRE FIGHTERS:
Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing when fighting fires. Use cold water spray to cool fire-exposed containers to minimize risk of rupture. Evacuate area of unprotected personnel.

### 5.4 FURTHER INFORMATION:
Combustion products may include carbon dioxide, carbon monoxide, organic acids and acrid smoke and fumes.

**Flammable Limits in Air (% by Volume):** LEL: 1.7; UEL: 12.5
**Flash Point:** 50°F (10°C) (TCC)

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:**
Proper personal protective equipment should be utilized when handling this material.

**6.2 ENVIRONMENTAL PRECAUTIONS:**
Prevent spill from entering sewers and waterways.

**6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:**
Dike with sand or earth to prevent spill from entering sewers and waterways. Remove all ignition sources. Keep up wind of spill containment area. Ventilate spill area. All equipment used when handling this product must be grounded. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand, or other non-combustible material and transfer to containers. Use clean non-sparking tools to collect absorbed material. Personal protective equipment should be used when cleaning up all spills. Methyl methacrylate is on the CERCLA list of hazardous substances and spills of reportable quantities must be reported to the National Response Center (800-424-8802). The CERCLA Reportable Quantity (RQ) for MMA is 1,000 lb.

**6.4 REFERENCE TO OTHER SECTION(S):**
See SECTION 7 for information on Safe Handling.
See SECTION 8 for information on Personal Protective Equipment.
See SECTION 13 for information on Disposal.

## SECTION 7: HANDLING AND STORAGE

**7.1 PRECAUTIONS FOR SAFE HANDLING:**
Product is flammable. Keep away from heat, sparks and flames. Keep containers closed when not in use. Use with adequate ventilation. Avoid contact with eyes and skin. Avoid breathing mists or vapors. Use proper grounding procedures.

**7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:**
Store in cool, dry area away from heat, oxidizers and combustible materials. Close containers when not in use.

# SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

## 8.1 CONTROL PARAMETERS:

**Exposure Limit values:**

| Ingredient Name | CAS # | % WT | Limit Values |
|---|---|---|---|
| **Ultra-Bond G*** | **Mixture** | **100** | |
| Fillers and miscellaneous non-hazardous ingredients | N/A | <40 | N (Hazardous)<br>N/A – OSHA PEL TWA<br>N/A – ACGIH TLV TWA |
| Methyl methacrylate | 80-62-6 | 30-60 | Y (Hazardous)**<br>100 ppm (OSHA PEL TWA)<br>50 ppm (ACGIH TLV TWA)<br>100 ppm (ACGIH STEL CEILING) |
| Trimethylolpropane, trimethacrylate esters | 3290-92-4 | 1-5 | Y (Hazardous)**<br>N/A – OSHA PEL TWA<br>N/A – ACGIH TLV TWA |
| Paraffin wax | 64742-43-4 | 1-5 | N (Hazardous)<br>N/A – OSHA PEL TWA<br>N/A – ACGIH TLV TWA |

** Mixture. Chemicals that follow this listed chemical are part of the listed mixture.*
*** All ingredients in quantities >1.0% (>0.1% for carcinogens) that are potentially hazardous per OSHA definitions*
Some States enforce the PELs that OSHA promulgated in 1989, which were subsequently vacated by the U.S. Supreme Court. Check with your state OSHA agency to determine which PEL is enforced in your jurisdiction.

## 8.2 EXPOSURE CONTROLS:

**Ventilation Requirements:**
Local exhaust ventilation should be used to control the emissions of air contaminants. General dilution ventilation may assist with the reduction of air contaminant concentrations.

**Skin and body protection:**
Wear polyvinyl alcohol and Teflon gloves to prevent skin contact. Protective aprons may be necessary where employees may be splashed. Contaminated clothing should be removed and laundered before reuse.

**Eye/Face:**
Wear chemical safety glasses, goggles or face shields to prevent eye contact.

**Respiratory:**
Respiratory equipment approved by NIOSH/MSHA for protection against organic vapors and mists is necessary to avoid inhalation of excessive air contaminants. The appropriate respirator selection depends on the type and magnitude of exposure (refer 29 CFR 1910.134 for appropriate NIOSH approved respirators and to the NIOSH Pocket Guide to Chemical Hazards, DHHS (NIOSH) Publication NO. 2001-145 for equipment selection). Use a positive pressure air supplied respirator if there is a potential for an uncontrolled release, exposure levels are not known or under any other circumstances where air purifying respirators may not provide adequate protection.

**Other Protective Clothing/Equipment:**
Emergency eye wash stations and safety showers should be available in the work area.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

**Appearance**: Off white paste
**Boiling Point:** 213 °F (100.5 °C)
**Molecular/Chemical Formula:** Mixture
**Evaporation Rate:** 3
**Bulk Density:** N/A
**Freezing Point:** N/A
**Melting Point:** -54 °F (-47.7 °C)
**Octanol/Water Partition Coefficient:** N/A
**Water/Oil Distribution Coefficient:** N/A
**Odor:** Sweet, acrid fruity acrylic odor
**Odor Threshold:** N/A
**Percent Volatile:** Not Determined

**pH Value:** N/A
**Physical State:** Liquid
**Reactivity in Water:** N/A
**Solubility in Water:** Not Determined
**Specific Gravity or Density (Water=1):** 0.93 - 1.05
**Vapor Density:** 3.5 (Air=1)
**Vapor Pressure:** 28 mmHg 68°F
**Flammable Limits in Air (% by Volume):** LEL: 1.7; UEL: 12.5
**Flash Point:** 50°F (10°C) (TCC)

## SECTION 10: STABILITY AND REACTIVITY

**10.1 REACTIVITY:** Possibly reactive under certain conditions.
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**10.2 CHEMICAL STABILITY:** Unstable.

**10.3 POSSIBILITY OF HAZARDOUS REACTIONS:**
Hazardous polymerization may occur under certain conditions.

**10.4 CONDITIONS TO AVOID:**
Extreme heat, sparks, open flame, incompatible materials, oxidizers and oxidizing conditions. Also avoid oxygen free atmospheres or inert gas blanketing and freezing conditions. This product can soften paint and rubber.

**10.5 INCOMPATIBILE MATERIALS:**
Contact with strong oxidizers, strong alkalies reducing agents, azo compounds, catalytic metals, halogens and strong acids.

**10.6 HAZARDOUS DECOMPOSITION PRODUCTS:**
Carbon dioxide, carbon monoxide, acrid smoke and fumes, and organic acids.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

| VALUE | ANIMAL | ROUTES | COMPONENTS |
|---|---|---|---|
| 7094 ppm/4hr | Rat | Inhalation- LC50 | Methyl methacrylate |
| 7872 mg/kg | Rat | Oral - LD50 | Methyl methacrylate |
| 16 ml/kg | Rabbit | Skin- LD50 | Trimethylolpropane trimethacrylic esters |
| 5660 ul/kg | Rat | Oral - LD50 | Trimethylolpropane trimethacrylic esters |

**Product Based Information:**
No toxicological information is available for the finished product.

**Ingredient Based Information:**
In one study, high doses of MMA were reported to produce an increased incidence of blood vessel aggregates in rat pups whose mothers received MMA by injection while pregnant.
Degenerative changes in the liver were observed in Guinea pigs following inhalation exposure to 9.5 ppm of MMA for 3 hours/day for 15 days, according to a 1945 report.
Ingestion of MMA caused irritation of the alimentary canal and kidney and liver lesions (Lefaus, R. Practical Toxicology of Plastics. CRC Press, Inc., 1968P.324).
Methyl methacrylate has been shown to cause neurotoxic effects in primarily animal studies.
Carcinogenicity: None of the ingredients listed in Section 2 are considered carcinogens by OSHA, NTP, or IARC.

**Possible target organs:** Skin and respiratory system (e.g., lungs), liver, kidneys, heart and central nervous system.

**Relevant Routes of Exposure:** Inhalation, eye, skin and ingestion.

**Signs and Symptoms of Acute Overexposure:**
Inhalation of high vapor concentration may irritate the eyes and mucous membranes of the nose, throat and upper respiratory tract. Symptoms may include burning sensation, coughing, sore throat, shortness of breath and dizziness. Severe overexposures can cause confusion, headache, nausea, anorexia, irritability, narcosis, drowsiness, unconsciousness, collapse, coma and possibly death. Repeated or prolonged skin contact with liquid may cause irritation, dermatitis and allergic reactions. Symptoms may include redness, itching, dry, scaly and fissured dermatitis, rash and blisters. Eye contact may result in irritation and possible corneal damage. Symptoms may include redness, tearing, burning sensation, swelling of the eye tissue and pain. If swallowed, may cause gastrointestinal disturbances. Symptoms may include nausea, vomiting, sore throat, abdominal pain and lack of appetite. Aspiration of methyl methacrylate into the lungs may cause chemical pneumonia which may be life threatening.

**Signs and Symptoms of Chronic Overexposure:**
Repeated and prolonged contact with the skin can cause dermatitis and allergic skin reactions. Repeated eye contact may result in conjunctivitis. Chronic inhalation may result in neurologic and behavioral changes according to results with animal studies.

**Medical Conditions Generally Aggravated By Exposure:**
Individuals with chronic respiratory disorders may be adversely affected by any fume or airborne particulate matter exposure. Persons with preexisting skin disorders may be more susceptible to the effects of this material.

**Carcinogenicity:**
**NTP:** N/A
**IARC:** N/A
**OSHA:** N/A
**ACGIH:** N/A
**OTHER:** N/A

## SECTION 12: ECOLOGICAL INFORMATION

**12.1 ECOLOGICAL INFORMATION:** No ecological data is currently available.

## SECTION 13: DISPOSAL CONSIDERATIONS

**13.1 DISPOSAL:**
Dispose of in accordance with local, state and federal requirements. Methyl methacrylate (MMA) is specifically listed as a RCRA U162 hazardous waste and mixtures may meet the criteria of ignitability D001.

- **Important Disposal Information:**
  Rags, steel wool and waste soaked with this product may spontaneously catch fire if improperly discarded or stored. To avoid a spontaneous combustion fire, immediately after use, place rags, steel wool or waste in a sealed, water-filled, metal container.

## SECTION 14: TRANSPORT INFORMATION

**14.1 TRANSPORT:**

**Proper Shipping Name:** Adhesives
**Hazard Class:** 3
**ID Number:** 3
**DOT Exemption:** ORM-D Small quantity exemption
**Packing Group:** II
**Marine Pollutant:** Yes

## SECTION 15: REGULATORY INFORMATION

**15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE EU REGULATION:**

**U.S. Federal Regulations:**
Toxic Substances Control Act (TSCA) Inventory- Yes
Superfund Amendments and Reauthorization Act (SARA 313)-MMA
Clean Air Act (Section 111) Volatile Organic Compound- MMA
Clean Air Act (Section 112) Statutory Air Pollutants- MMA
Clean Water Act (Section 311) Hazardous Substances- MMA
Clean Water Act (Section 307) Priority Pollutant- N/A

**State Regulations:**
Pennsylvania Hazardous Substance List- MMA (E)
New Jersey Hazardous Substance List- MMA (F3, R2, 1277)
Massachusetts Substance List- MMA
California Proposition 65 List.
This product does not contain any chemicals listed by the State of California to cause cancer and/or birth defects or other reproductive harm.

**International Regulations:**
Canadian Inventory (DSL)- Yes

**SARA Hazards:**
**Acute:** Yes
**Chronic:** Yes
**Reactive:** Yes
**Fire:** Yes
**Pressure:** No

## SECTION 16: OTHER INFORMATION

**16.1 ABBREVIATIONS AND ACRONYMS:**

CLP= Classification, Labelling and Packaging
CAS= Chemical Abstract Service
DSD= Dangerous Substance Directive
N/A= Not Applicable
MSHA=Mine Safety and Health Administration
NIOSH=National Institute of Occupational Safety and Health
CEIL=Ceiling Limit Value
STEL=Short Term Exposure Limit
CNS= Central Nervous System
SARA= Superfund Amendment and Reauthorization Act
ACGIH=American Conference of Governmental Industrial Hygienists
OSHA=Occupational Safety and Health Administration
PNOC=Particulates Not Otherwise Classifiable
TLV=Threshold Limit Value
PEL=Permissible Exposure Limit
TWA=Time Weighted Average

**16.2 KEY LITERATURE REFERENCE AND SOURCES FOR DATA:**
Provided by company.

**16.3 APPLICABLE STATEMENTS:**

**DSD Statements:**

- **Risk(R) Statement(s):**
  - R11 Highly Flammable
  - R37/38 Irritating to respiratory system and skin

- **Safety(S) Statement(s):**
  - S02 Keep out of the reach of children
  - S24 Avoid contact with skin
  - S37 Wear suitable gloves
  - S46 If swallowed, seek medical advice immediately and show this container or label

**Additional Statements:**

Emergency Overview:
- WARNING! FLAMMABLE LIQUID AND VAPOR. This product may undergo hazardous polymerization. Vapor may cause flash fire. Expected to cause eye, skin and upper respiratory tract irritation. Exposure to high concentrations of mists or vapors may cause central nervous system depression with headache, drowsiness, nausea, weakness, fatigue, and loss of appetite. May cause dermatitis and allergic skin reactions. Possible aspiration hazard.

Potential Health Effects:

- Eyes: May cause eye irritation with possible corneal damage.
- Skin: May cause irritation and possibly dermatitis. Repeated or prolonged contact may result in sensitization
- Ingestion: Ingestion can result in gastrointestinal disturbances (vomiting, nausea, diarrhea, abdominal pain and lack of appetite). Possible aspiration hazard. This product, if vomited, may be aspirated into the lungs causing chemical pneumonia which may be life threatening.
- Inhalation: Heating, misting, or spraying of product may produce irritation to the eyes, nose, throat and upper respiratory tract, including respiratory sensitization with asthma-like symptoms in susceptible individuals. Overexposure may cause dizziness, headache or anesthetic effect.

**16.4 TRAINING ADVICE:**
Provide adequate information, instruction and training to operators.

**16.5 DECLARE TO READER:**
If you require additional information regarding any legal or regulatory requirements referred to in this SDS, we suggest that you consult with an appropriate regulatory agency, or with a professional with expertise in this area. This information is taken from sources or based upon data believed to be reliable; however, Aristech Surfaces LLC makes no warranty as to the absolute correctness or sufficiency of any of the foregoing or that additional or other measures may not be required under particular conditions.

**16.6 ADDITIONAL INFORMATION:**

**Prepared according to: Appendix D of 29 CFR 1910.1200**
**Regulation (EC) No 1272/2008[CLP]**

**SDS REVISION DATE:** 3/27/14

| **NFPA Codes:** | **HMIS Codes:** |
|---|---|
| Health: 2 | Health: 2 |
| Flammability: 3 | Flammability: 3 |
| Reactivity: 2 | Reactivity: 2 |

**Releasable VOC/HAP for Avonite Surfaces Ultra-Bond G System:**
VOC potential after mixing Ultra-Bond G parts A and B as an adhesive system

| Property | VOC/HAP Released | Test Method |
|---|---|---|
| Volatile Organic Compounds (VOC) | 0.5%, by weight (5.3 g/L) | 40 CFR Part 63 Appendix A |
| Hazardous Air Pollutants (HAP) | 0.5%, by weight (5.3 g/L) | 40 CFR Part 63 Appendix A (100% of the VOC is a HAP) |
| Solids | 99.5%, by weight | 40 CFR Part 63 Appendix A |
| Product Density | 8.89 lbs/gal. (1.06 sp. gr.) | ASTM D1475 |