SAFETY DATA SHEET

PRODUCT NAME: ALTAIR® PLUS
MSDS ISSUE DATE: 11/13/85
SDS REVISION DATE: 1/15/14

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

1.1 PRODUCT NAME: ALTAIR® PLUS
Synonyms: Cast Acrylic ABS Composite Sheet
Chemical Name: Polymethylmethacrylate, Acrylonitrile-Butadiene-Styrene Polymer

1.2 PRODUCT USE: Acrylic/Solid Surface

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:

The product in its finished, marketed form is believed to be inert and *generally* innocuous. These classifications/hazards are pertaining to a compromised/disrupted product due to operations and processing such as sanding, sawing, grinding, burning etc.

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

Acute Toxicity – Category 4
Eye Irritation - Category 2
Skin Irritation - Category 2
Specific Target Organ Toxicity Single Exposure - Category 3 (Respiratory)

2.2 LABEL ELEMENTS:

WARNING!!!

IRRITANT

Signal Word: WARNING!

Relevant Routes of Exposure: Inhalation, eye and skin.

CLP/GHS Statements:

- **Hazard Statement(s):**

  - H302 Harmful if swallowed
  - H315 Causes skin irritation
  - H319 Causes serious eye irritation
  - H332 Harmful if inhaled
  - H335 May cause respiratory irritation

- **Precautionary statement(s):**

  Prevention:

  - P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
  - P264 Wash hands thoroughly after handling.
  - P270 Do not eat, drink or smoke when using this product.
  - P271 Use only outdoors or in a well-ventilated area.
  - P280 Wear protective gloves/protective clothing/eye protection/face protection.

  Response:

  - P301 + P312 IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell.
  - P302 + P352 IF ON SKIN: wash with plenty of soap and water.
  - P304 + P312 IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.
  - 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.
  - P312 Call a POISON CENTER or doctor/physician if you feel unwell.
  - P337 + P313 IF eye irritation persists: Get medical advice/attention.
  - P342 + P311 IF experiencing respiratory symptoms: call a POISON CENTER or doctor/physician.

  Storage:

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

  Disposal:

  - P501 Dispose of in accordance with local, state and federal requirements. This product as sold in its marketed form is not considered an EPA hazardous waste when discarded. Allow hot or heated material to solidify and cool before disposal.

SECTION 3: COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 COMPOSITION:

Ingredient Name	CAS #	EC #	% WT	DSD Classification	CLP/GHS Classification
*** ALTAIR® PLUS**	**Mixture**	**Mixture**	**100**	**Not Classified**	**Not Classified**
Acrylonitrile-Butadiene-Styrene Polymer	9003-56-9	N/A	48-66	Not Classified	Acute Tox. 4 H302 Skin Irrit. 2 H315 Eye Irrit. 2 H319 STOT SE 3 H335  WARNING!
Butyl acrylate, methyl methacrylate copolymer	25852-37-3	N/A	32-50	Not Classified (but includes butyl acrylate) Additional to MMA is: R10; R36/37/38 S09	Not Classified (but includes butyl acrylate) Additional to MMA is: Eye Irrit. 2 H319  WARNING!
Colorants	N/A	N/A	~1.8	Not Classified	Not Classified
Methyl methacrylate	80-62-6	201-297-1	<1	F; Xi R11; R37/38 S02; S24 S37; S46	Flam. Liq. 2 H225 Skin Irrit. 2 H315 Skin Sens. 1 H317 STOT SE 3 H335  DANGER!
Styrene	100-42-5	N/A	~0.2	Xn, Xi R10; R20; R36/38 S02; S23	Flam. Liq. 3 H226 Skin Irrit. 2 H315 Eye Irrit. 2 H319 Acute Tox. 4 H332  WARNING!

* 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.

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 and skin.

Inhalation:
For overexposure to heated resins, remove from exposure. If breathing is difficult, or has stopped, administer artificial respiration (mouth-to-mouth) or oxygen as indicated. Call a physician, immediately.

Skin Contact:
Wash affected area with soap and plenty of water. If irritation develops, call a physician.

Eye Contact:
Remove contact lenses. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek medical advice if symptoms persist or develop.

Ingestion:
Product in its marketed form is inert. If large amounts are swallowed, call physician, immediately.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA:
Use water or dry chemicals to extinguish fire.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANTS OR MIXTURE:
Burning material may give off toxic products of combustion (CO, CO2) when involved in a hot fire.

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.

5.4 FURTHER INFORMATION:
Combustion products may include carbon dioxide, carbon monoxide, methyl methacrylate monomer (MMA) and acrid smoke and fumes.

Flammable Limits in Air (% by Volume): N/A

Flash Point: 750°F(400°C) self ignition temperature by ASTM D-1929

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:
Since finished product has sharp edges, protective gloves should be worn when handling.

6.2 ENVIRONMENTAL PRECAUTIONS:
This product as sold in its marketed form is not considered an EPA hazardous waste when discarded.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:
If released or spilled, product may be cleaned up and disposed in the trash. Allow hot or heated material to solidify and cool before disposal

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:

Avoid breathing of vapors, fumes and smoke which may be released during thermal processing. Since finished product has sharp edges, protective gloves should be worn when handling.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

Store in cool dry area.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS:

Exposure Limit values:

Ingredient Name	CAS #	% WT	Limit Values
*** ALTAIR® PLUS**	**Mixture**	**100**	**This product can generate Particulates Not Otherwise Regulated (PNOR). The OSHA PEL-TWA for PNOR is 15 mg/m^3 (total dust) and 5 mg/m^3 (respirable fraction). The TLV-TWA for Particles Not Otherwise Specified (PNOS) is 10 mg/m^3 (inhalable) and 3 mg/m^3 (respirable fraction).**
Acrylonitrile-Butadiene-Styrene Polymer	9003-56-9	48-66	N (Hazardous) N/A – OSHA PEL TWA N/A – ACGIH TLV TWA
Butyl acrylate, methyl methacrylate copolymer	25852-37-3	32-50	N (Hazardous) N/A – OSHA PEL TWA N/A – ACGIH TLV TWA
Colorants	N/A	~1.8	Y(Hazardous)** N/A – OSHA PEL TWA N/A – ACGIH TLV TWA
Methyl methacrylate	80-62-6	<1	Y(Hazardous)** 100 ppm (OSHA PEL TWA) 50 ppm (ACGIH TLV TWA) 100 ppm (ACGIH STEL CEILING)
Styrene	100-42-5	~0.2	Y(Hazardous)** 100 ppm (OSHA PEL TWA) 200 ppm (OSHA PEL STEL) 20 ppm (ACGIH TLV TWA) 40 ppm (ACGIH TLV STEL)

* 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.

Eye/Face:
Employees should be required to wear chemical safety goggles to prevent eye contact. A face shield should be used when appropriate to prevent contact with hot material.

Skin:
When necessary, garments for protection against heated materials should be used to prevent skin contact with hot acrylate polymer. Since finished material has sharp edges, wear protective gloves when handling. Polyvinyl alcohol and Teflon® protective garments have been recommended for protection against methyl methacrylate.

Respiratory:
No personal respiratory protective equipment normally required. Wear a NIOSH approved dust respirator that is properly fitted and is in good condition when exposed to dust levels above the ACGIH permissible exposure limits (10mg/m3 based on an eight hour Time Weighted Average).

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: Solid sheet, various colors.
Boiling Point: N/A
Molecular/Chemical Formula: Mixture
Evaporation Rate: N/A
Bulk Density: N/A
Freezing Point: N/A
Melting Point: N/A
Octanol/Water Partition Coefficient: N/A
Water/Oil Distribution Coefficient: N/A
Odor: Odorless
Odor Threshold: N/A
Percent Volatile: N/A
pH Value: N/A
Physical State: N/A

Reactivity in Water: N/A
Solubility in Water: N/A
Specific Gravity or Density (Water=1): N/A
Vapor Density: N/A
Vapor Pressure: N/A
Flammable Limits in Air (% by Volume): N/A
Flash Point: 750°F(400°C) self ignition temperature by ASTM D-1929

SECTION 10: STABILITY AND REACTIVITY

10.1 REACTIVITY: Unreactive.

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10.2 CHEMICAL STABILITY: Stable.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS: None known.

10.4 CONDITIONS TO AVOID:
Temperatures above 500°F (260°C); can release methyl methacrylate.

10.5 INCOMPATIBILE MATERIALS: None known.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS:
Carbon dioxide, carbon monoxide, acrid smoke and fumes, possibly methyl methacrylate.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

VALUE	ANIMAL	ROUTES	COMPONENTS
250 mg/kg	Rabbit	Dermal- LC_{50}	Acrylonitrile-butadiene styrene copolymer
78 mg/kg	Rat	Oral - LD_{50}	Acrylonitrile-butadiene styrene copolymer
5000 mg/kg	Rat	Oral - LD_{50}	Styrene

Product Based Information:
No toxicological information is available for the finished product. This product is generally believed to be inert based on available data.

Ingredient Based Information:
The LD50 for butyl acrylate, methyl methacrylate copolymer (CAS No. 25852-37-3) is greater than 29,500 mg/kg. One of the monomers of butyl acrylate, methyl methacrylate copolymer, is methyl methacrylate (MMA). 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.

Possible target organs: Skin and respiratory system (e.g., lungs)

Relevant Routes of Exposure: Inhalation, eye and skin.

Signs and Symptoms of Acute Overexposure:
Product sold in its marketed form is not expected to present a serious health hazard; however, operations such as sawing, sanding, grinding or burning may generate dust, smoke or vapors which may be irritating. Inhalation of such dusts, smoke and vapors may cause upper respiratory tract irritation. Symptoms may include burning sensation, coughing, sneezing, and sore throat. Skin contact with dust may produce transitory mechanical irritation. Symptoms may include redness and itching. High concentrations of dusts may cause irritation to the eyes causing burning, redness, and tearing. This product is not expected to be toxic if ingested.

Signs and Symptoms of Chronic Overexposure:
Prolonged or repeated over exposures to high concentrations may cause coughing, dizziness, confusion, headache and drowsiness. Prolonged or repeated skin contact may lead to allergic skin reactions.

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

Additional Information:
* This product may contain certain organic or inorganic pigments that may include carbon black, compounds of nickel, compounds of cobalt or compounds of cadmium. Certain molecules of nickel have shown sufficient evidence of carcinogenicity (IARC Vol. 49) while others have shown limited or insufficient evidence of carcinogenicity in humans or animals. Cobalt pigments may be present in this product. The International Agency for Research on Cancer (IARC Vol. 52) lists cobalt compounds as possible human carcinogens (2B). Cadmium and Cadmium compounds are listed in IARC (Vol. 58) and the Annual NTP Report as carcinogenic to animals, but with only limited and conflicting evidence of carcinogenicity to humans. Various cadmium salts have been shown to cause local sarcomas, testicular atrophy (i.e., decreased size) and testicular tumors in laboratory animals following intravenous and subcutaneous injections. Carbon Black may be used as a pigment in this product. Carbon Black has been listed by IARC (Vol. 65) as a possible human carcinogen (2B)
Acrylonitrile-budadiene-styrene copolymer is considered a Group 3 by IARC- no adequate animal and no adequate human evidence of carcinogenicity (IARC Monogra. Eval, 19,73,79).
Styrene-IARC has reclassified Styrene from Group 3 to Group 2B now labeled as Possibly Carcinogenic to Humans. The new classification is not based on any significant new evidence that Styrene might be carcinogenic but rather a broadening of the definition of Group 2B classification. The previous definition only classified a substance as Group 2B if sufficient carcinogenic evidence existed in animal studies.
The current definition accepts limited evidence from animal studies if coupled with supporting evidence from other relevant studies.

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. This product as sold in its marketed form is not considered an EPA hazardous waste when discarded. Allow hot or heated material to solidify and cool before disposal.

SECTION 14: TRANSPORT INFORMATION

14.1 TRANSPORT:

Not regulated as a hazardous material.

Proper Shipping Name: None
Hazard Class: None
ID Number: None
Packing Group: None
Marine Pollutant: No

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)- Cadmium Compounds, Cobalt Compounds, Nickel Compounds, Styrene
Clean Water Act (Section 311) Hazardous Substances- Styrene
Clean Air Act (Section 111) Volatile Organic Compound- Styrene
Clean Air Act (Section 112) Statutory Air Pollutants- Styrene
SARA Section 110 Priority List of CERCLA Hazardous Substances - Styrene

State Regulations:
Pennsylvania Hazardous Substance List- Styrene (E)
New Jersey Hazardous Substance List- Styrene (F3, MU,R2)
Massachusetts Substance List- Styrene(C, E)
California Proposition 65 List- Yes* (Cadmium, Cobalt, Nickel, Carbon Black)
*Warning, this product contains chemical(s) known to the state of California to cause cancer and/or birth defects or other reproductive harm. The Proposition 65 chemical(s) found in this product appear in trace amounts and would not be expected to pose significant risk; however, a risk assessment for this (these) chemical(s) has not yet been performed. Each product should be assessed in light of its use.

International Regulations:
European Inventory (EINECS)- Unknown
Canadian Inventory (DSL)- Yes
Canadian Workplace Hazardous Materials Information System (WHMIS) - Styrene (0.1%-disclosure)

SARA Hazards:
Acute: Yes
Chronic: Yes
Reactive: No
Fire: No
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):**
  - R36/37/38 Irritating to respiratory system and skin
  - R20 Harmful by inhalation
  - S23 Toxic by inhalation

- **Safety(S) Statement(s):**
  - S02 Keep out of the reach of children
  - S23 Do not breathe gas/fumes/vapor/spray
  - 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:

- CAUTION! Inhalation of dusts or vapors may cause upper respiratory tract irritation with coughing and a burning sensation in the throat. Repeated skin exposures to dusts may cause allergic skin reactions.

Potential Health Effects:

- Eyes: Transient/mechanical irritation from contact with dusts. Possible irritation from operations and processing vapors or dusts.
- Skin: Possible transient/mechanical irritation.
- Ingestion: Product in marketed form is inert.
- Inhalation: Sawing, sanding, grinding, or burning may cause upper respiratory tract irritation

Label Statements:

- CAUTION! Inhalation of dusts or vapors may cause upper respiratory tract irritation with coughing and a burning sensation in the throat. Repeated skin exposures to dusts may cause allergic skin reactions.
- Avoid contact with eyes, skin and clothing
- Avoid breathing dust or vapors.
- Wash thoroughly after handling.
- Launder contaminated clothing before re-use.
- Use only with adequate ventilation.
- If repeated skin contact may occur, wear PVA gloves.
- Wear chemical safety goggles.
- If Exposure Limits may be exceeded, wear NIOSH approved dust respirator.

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:

NFPA Codes:	**HMIS Codes:**
Health: 2	Health: 1
Flammability: 0	Flammability: 0
Reactivity: 0	Reactivity: 0

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

SDS REVISION DATE: 1/15/14