SAFETY DATA SHEET

PRODUCT NAME: Acrylic Base or Toner
MSDS ISSUE DATE: 10/12/98
SDS REVISION DATE: 1/19/14

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

1.1 PRODUCT NAME: Acrylic Base or Toner
Synonyms: N/A
Chemical Name: Mixture

1.2 PRODUCT USE: Acrylic/Solid Surface Manufacturing

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]:

Acute Toxicity - Category 4
Aspiration hazard – Category 1
Carcinogenicity - Category 1B
Eye Irritation - Category 2
Flammable Liquid - Category 2
Germ Cell Mutagenicity - Category 2
Hazardous to the aquatic environment (Acute) - Category 1
Hazardous to the aquatic environment (Chronic) - Category 1
Reproductive toxicity - Category 1B
Skin Irritation - Category 2
Skin Sensitization - Category 1
Specific Target Organ Toxicity (Repeated Exposure) - Category 1
Specific Target Organ Toxicity (Single Exposure) - Category 3

2.2 LABEL ELEMENTS:

DANGER!!!

IRRITANT – HAZARDOUS – TOXIC - FLAMMABLE

Signal Word: DANGER!

Relevant Routes of Exposure: Inhalation, eye and skin.

CLP/GHS Statements:

- **Hazard Statement(s):**

  - H225 Highly Flammable liquid and vapor
  - H304 May be fatal if swallowed and enters airways
  - H312 Harmful in contact with skin
  - H315 Causes skin irritation
  - H317 May cause an allergic skin reaction
  - H319 Causes serious eye irritation
  - H332 Harmful if inhaled
  - H335 May cause respiratory irritation
  - H336 May cause drowsiness or dizziness
  - H360 May damage fertility or the unborn child
  - H372 Causes damage to organs through prolonged or repeated exposure
  - H410 Very 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.
  - P241 Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking. tools.
  - P243 Take precautionary measures against static discharge.
  - P260 Do not breathe 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.
  - 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 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated. clothing. Rinse SKIN with water/shower.
- 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.
- P308 + P313 IF exposed or concerned: Get medical advice/attention.
- P312 Call a POISON CENTER or doctor/physician if you feel unwell.
- P314 Get medical advice/attention if you feel unwell.
- P331 Do NOT induce vomiting.
- 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 foam, carbon dioxide, or dry chemicals for extinction.
- P391 Collect spillage. Hazardous to the aquatic environment

Storage:

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

Disposal:

- P501 Dispose of contents/container in accordance with local, state and federal requirements.The following ingredients are listed RCRA hazardous wastes: Methyl methacrylate (MMA) is specifically listed as a RCRA U162 hazardous waste, Methyl ethyl ketone is U159, Xylene is U239, Toluene is U220. In addition, MEK is a TCLP constituent; waste product or other waste material containing or contaminated with this product may be a toxicity characteristic hazardous waste (D035). The product itself meets the RCRA criteria for ignitability D001.

SECTION 3: COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 COMPOSITION:

Ingredient Name	CAS #	EC #	% WT	DSD Classification	CLP/GHS Classification
*** Acrylic Base or Toner**	**Mixture**	**Mixture**	**100**	**Not Classified**	**Not Classified**
Toluene	108-88-3	203-625-9	40-49	F; Xn; Xi; Repr. Cat. 3; R11; R63 R48/20; R65; R38; R67 S02; S36/37; S46; S62	Flam. Liq. 2 H225 Asp. Tox. 1 H304 Skin Irrit. 2 H315 STOT SE 3 H336 Repr. 2 H361d STOT RE 2 H373  DANGER!
Methyl Ethyl Ketone (MEK)	78-93-3	201-159-0	10-20	F; Xi R11; R36; R66;R67; S02; S09; S16;	Flam. Liq. 2 H225 EUH066 Eye Irrit. 2 H319 STOT SE 3 H336  DANGER!
Cadmium Salts	Various	Various	4-10	Not Classified	Acute Tox. 2 H330 Muta. 2 H341 Carc. 1B H350 Repr. 2 H360 STOT RE 1 H372 Aquatic Acute 1 H400 Aquatic Chronic 1 H410  DANGER!
Methyl methacrylate	80-62-6	201-297-1	4-10	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!
Titanium Dioxide	13463-67-7	236-675-5	<4	Not Classified	Acute Tox. 4 H332 Carc. 2 H351  WARNING!

Xylene	1330-20-7	215-535-7	<4	Xn; Xi; R10; R20/21; R38; S02; S25	Flam. Liq. 3 H226 Acute Tox. 4 H312 Skin Irrit. 2 H315 Acute Tox. 4 H332  WARNING!
2-Ethoxyethyl Acetate	111-15-9	203-839-2	1-5	Repr. Cat. 2; Xn; T; F R10; R60-61; R20/21/22; S53; S45;	Flam. Liq. 3 H226 Acute Tox. 4 H302 Acute Tox. 4 H312 Acute Tox. 4 H332 Repr. 1B H360FD  DANGER!

* 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 and skin.

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

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

Eye Contact:
Flush immediately with plenty of cool water for at least 15 minutes. Call a physician immediately.

Ingestion:
Remove from exposure. If breathing is difficult, administer artificial respiration (mouth-to-mouth) or oxygen as indicated. Call a physician or poison control center, immediately.
DO NOT INDUCE VOMITING! Rinse mouth immediately with plenty of water. If victim is conscious and alert, give 1 glass of milk or water. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. Call a physician or poison control center, immediately.
This product, if vomited, may be aspirated into the lungs causing chemical pneumonia which may be life threatening.

Notes to Physicians:
This product may contain up to 5% Cadmium. Absorption following ingestion should be terminated. If quantity ingested is greater than 15 ml (adult) or 5 ml (child), careful gastric lavage may be indicated. Since aspiration is a possibility, consideration should be given to the use of endotracheal cuff with lavage.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA:
Use foam, carbon dioxide, or dry chemicals to extinguish fire. Water may be ineffective, but should be used to cool fire-exposed containers. Water spray can also be used to disperse vapors and to flush spills away from exposures.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANTS OR MIXTURE:
Vapors are heavier than air and may travel to a source of ignition and cause a flash back.

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 and acrid smoke and fumes.

Flammable Limits in Air (% by Volume): LEL:1.1%; UEL:12.8%

Flash Point: -70°F (-57°C) (closed cup)

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:
Evacuate personnel to safe areas. Ventilate the area. Remove all sources of ignition. Response and clean-up crews must be properly trained and must utilize proper protective equipment (see Section 8).

6.2 ENVIRONMENTAL PRECAUTIONS:
Discharge into the environment must be avoided. If the product contaminates rivers and lakes or drains inform respective authorities.

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, MEK is 5000 lb, Xylene is 100 lb and Toluene is 1000 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. Bond and ground containers for transfer of this product to prevent static sparks. Avoid contact with eyes and skin. Avoid breathing mists or vapors. Proper protective equipment should be utilized when handling this material.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

Store away from heat, sparks and flames and all ignition sources. Keep away from oxidizers. Do not store above 120°F (49 °C). Wash thoroughly after handling and before eating or smoking.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS:

Exposure Limit values:

Ingredient Name	CAS #	% WT	Limit Values
*** Acrylic Base or Toner**	**Mixture**	**100**	**Not Classified**
Toluene	108-83-3	40-49	Y (Hazardous)** 200 ppm (OSHA PEL TWA) 300 ppm (OSHA PEL Ceiling) 100 ppm (skin)(ACGIH TLV TWA)
Methyl Ethyl Ketone	78-93-3	10-20	Y (Hazardous)** 200 ppm (OSHA PEL TWA) 200 ppm (ACGIH TLV TWA) 300 ppm (ACGIH STEL CEILING
Cadmium Salts	Various	4-10	Y (Hazardous)** 0.2 mg/m^3 (as Cd dust)(OSHA PEL TWA) 0.6 mg/m^3 (as Cd dust)(OSHA PEL CEIL) 0.01 mg/m^3 (elemental)(ACGIH TLV TWA)
Methyl methacrylate	80-62-6	4-10	Y(Hazardous)** 100 ppm (OSHA PEL TWA) 50 ppm (ACGIH TLV TWA) 100 ppm(ACGIH STEL CEILING)
Titanium Dioxide	13463-67-7	<4	Y (Hazardous)** 15 mg/m^3 (OSHA PEL TWA) 10 mg/m^3 (ACGIH TLV TWA)
Xylene	1330-20-7	<4	Y (Hazardous)** 100 ppm (OSHA PEL TWA) 100 ppm (ACGIH TLV TWA) 150 ppm (ACGIH TLV STEL
2-Ethoxyethyl Acetate	111-15-9	1-5	Y(Hazardous)** 100 ppm (skin) (OSHA PEL TWA) 5 ppm (skin) (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.

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

Skin:
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.

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: Semi-viscous clear liquid
Boiling Point: 212-347°F (100-175°C)
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: Characteristic
Odor Threshold: N/A
Percent Volatile: ~80% by volume
pH Value: N/A
Physical State: Liquid
Reactivity in Water: N/A
Solubility in Water: Slight
Specific Gravity or Density (Water=1): 0.921
Vapor Density: 2.0 (Air=1)
Vapor Pressure: 226 mmHg@20°C
Flammable Limits in Air (% by Volume): LEL:1.1%**;** UEL:12.8%
Flash Point: -70°F (-57°C) (closed cup)

SECTION 10: STABILITY AND REACTIVITY

10.1 REACTIVITY: Unreactive.

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10.2 CHEMICAL STABILITY: Stable.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS:
Can react with strong acids and oxidizing agents.

10.4 CONDITIONS TO AVOID:
Heat, sparks, flames, temperatures above 120 °F (49 °C) and strong oxidizing agents.

10.5 INCOMPATIBILE MATERIALS: Strong acids and oxidizers.

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

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

VALUE	ANIMAL	ROUTES	COMPONENTS
7094 ppm/4hr	Rat	Inhalation- LC50	Methyl methacrylate
23,500 mg/m /8 hr.	Rat	Inhalation- LC50	Methyl Ethyl Ketone
49 mg/m /4 hr.	Rat	Inhalation- LC50	Toluene
12,100 mg/m /8 hr.	Rat	Inhalation- LC50	2-Ethoxyethyl Acetate
5000 ppm/4 hr.	Rat	Inhalation- LC50	Xylene
>1700 mg/kg.	Rabbit	Dermal- LD50	Xylene
6480 mg/kg.	Rabbit	Dermal- LD50	Methyl Ethyl Ketone
10,500 ul/kg.	Rabbit	Dermal- LD50	2-Ethoxyethyl Acetate
14,1000 ul/kg.	Rabbit	Dermal- LD50	Toluene
7872 mg/kg	Rat	Oral - LD50	Methyl methacrylate
636 mg/kg	Rat	Oral - LD50	Toluene
4300 mg/kg	Rat	Oral - LD50	Xylene
2700 mg/kg	Rat	Oral - LD50	2-Ethoxyethyl Acetate
2737 mg/kg	Rat	Oral - LD50	Methyl Ethyl Ketone

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

Ingredient Based Information:

In one study, high doses of Methyl Methacrylate 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. Intentional sniffing of toluene may cause brain damage, gait, personality changes, loss of memory and possible birth defects (Hersh JH; J Med Genet 26(5)333-7(1989)). In tests with laboratory animals, MEK did not cause any teratogenic effects at exposure concentrations which demonstrated evidence of maternal toxicity. Similarly, animal testing produced evidence of fetotoxicity but only in the presence of maternal toxicity (MSDS-MEK, Union Carbide 1/16/96:1979, EPA doc. no. 878210652). MEK was negative in several mutagenicity assays including the Ames Test (1984, EPA doc. no. 40-8444072). Rat inhalation studies on Xylene (at 100ppm and 400ppm) conducted by the American Petroleum Institute (API) showed no evidence of teratogenicity. Other teratology studies show limited and mixed evidence of embryotoxic and teratogenic effects of Xylene. Rats exposed to various concentrations of Xylene for 24hr/day from day 7-14 of pregnancy showed no maternal toxicity. However, bone formation was retarded in fetuses at all concentrations. Although the incidence of extra ribs in fetuses increased and none of the concentrations were teratogenic (Balogh T et al; Egeszsegtudomany 26 (1) 42-8, 1982)). Xylene exposures in rats resulted in embryotoxic and teratogenic effects. Effects included the brain, liver, lung and heart (Mirkova E et al; J Hyg Epidemiol Microbial Immunol 27 (3) 337-43(1983)). There are few well-conducted studies of the reproductive effects of Xylene in humans. Very limited data suggest that toxicosis, miscarriage, hemorrhage during childbirth and infertility may occur. There is evidence in animals that Xylene is embryotoxic, fetotoxic and possibly teratogenic, usually at doses which cause maternal toxicity. Xylene is rated by the REPROTEXT system as an unconfirmed human reproductive hazard (A-) (HSDB, Xylene chemical print 1997). 2-Ethoxyethyl acetate has been evaluated by EPA and based on animal studies, has been found to have adverse reproductive and developmental potentials at concentrations to which humans may be exposed (FR 51, 18488, 5/20/86). A variety of gynecologic disorders, and fetal structural abnormalities have been reported in humans (HSDB, chemical EGEE, 1997).

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

Relevant Routes of Exposure: Inhalation, eye and skin.

Signs and Symptoms of Acute Overexposure:

Prolonged or repeated breathing of vapors can cause irritation to the upper respiratory tract. Symptoms may include sore throat, watery eyes, sneezing, and coughing. Excessive inhalation of high concentration above the TLV can cause Central Nervous System (CNS) depression causing nausea, drowsiness, incoordination, headache, dizziness, anorexia, insomnia, weakness and difficulty seeing bright lights. Systemic absorption can also cause liver and kidney damage. Repeated or prolonged skin contact can produce irritation. Symptoms may include burning, itching, and redness. Extreme exposures can cause defatting of the skin followed with dryness, fissuring, dermatitis and possible secondary infection. Absorption through the skin may lead to systemic toxicity. Eye contact may cause irritation with possible temporary corneal damage. Symptoms may include tearing, redness, swelling of the eye tissue, and burning. Ingestion may cause nausea, vomiting, diarrhea and possibly systemic toxicity. This product is a possible aspiration hazard. Aspiration of material into the lungs can lead to chemical pneumonia, which may be life threatening. Prolonged or repeated exposures may cause liver and kidney damage, systemic toxicity, and cardiac sensitization. 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.

Signs and Symptoms of Chronic Overexposure:

Prolonged or repeated exposures may cause liver and kidney damage, systemic toxicity, and cardiac sensitization. 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.

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:

Methyl methacrylate is classified as a Group 3 carcinogen by the International Agency for Research on Cancer (IARC). Group 3 designates a material that is not classifiable as to human carcinogenicity. Long-term follow up of workers does not support the carcinogenicity of methyl methacrylate but chronic exposure in animals has been associated with fibrosarcomas Anon, 1994; reviewed HSDB, 1996).

Cadmium: Cadmium and Cadmium Compounds are listed as undifferentiated in IARC and the Annual NTP Report as carcinogenic to animals, but with only limited and conflicting evidence of carcinogenicity to humans. These listings are based on test results for Cadmium Compounds other than the pigmentary forms, which are not contained in this product (i.e., oxides and metals). Limited studies have suggested that human exposure to cadmium (primarily as the oxide) is associated with an increased risk of cancer. 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.

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. The following ingredients are listed RCRA hazardous wastes: Methyl methacrylate (MMA) is specifically listed as a RCRA U162 hazardous waste, Methyl ethyl ketone is U159, Xylene is U239, Toluene is U220. In addition, MEK is a TCLP constituent; waste product or other waste material containing or contaminated with this product may be a toxicity characteristic hazardous waste (D035). The product itself meets the RCRA criteria for ignitability D001.

SECTION 14: TRANSPORT INFORMATION

14.1 TRANSPORT:

Proper Shipping Name: Flammable Liquid NOS (contains Toluene and Methyl Ethyl Ketone)
Hazard Class: 3
ID Number: UN1993
Packing Group: III
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, Xylene, 2-butanone (MEK),Toluene, Cadmium Compounds
Clean Air Act (Section 111) Volatile Organic Compound- MMA, Xylene, 2-butanone (MEK), Toluene
Clean Air Act (Section 112) Statutory Air Pollutants- MMA, Xylene, 2-butanone (MEK), Toluene
Clean Water Act (Section 311) Hazardous Substances- MMA, Xylene, Toluene
Clean Water Act (Section 307) Priority Pollutant- MMA, Toluene
Clean Water Act (Section 304) Water Quality Criteria Substances- Toluene

State Regulations:
Pennsylvania Hazardous Substance List- MMA (E), Xylene (E), 2-butanone (E), Toluene (E), 2-ethoxyethyl acetate, Titanium dioxide
New Jersey Hazardous Substance List- MMA (F3, R2, 1277), 2-butanone, Toluene (S, F3), 2-ethoxyethyl- acetate, Titanium dioxide, Xylene (S), Toluene (S, F3)
Massachusetts Substance List- MMA, Xylene, 2-butanone, Toluene, 2-ethoxyethyl acetate, Titanium dioxide
California Proposition 65 List.
*Warning, this product contains chemicals known to 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: No
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
  - R20/21/22 Harmful by inhalation, in contact with skin and if swallowed
  - R36/37/38 Irritating to respiratory system, eyes and skin
  - R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation
  - R60 May impair fertility
  - R61 May cause harm to the unborn child
  - R63 Possible risk of harm to the unborn child
  - R65 Harmful: May cause lung damage if swallowed
  - R66 Repeated exposure may cause skin dryness or cracking
  - R67 Vapors may cause drowsiness and dizziness

- **Safety(S) Statement(s):**

  - S02 Keep out of the reach of children
  - S09 Keep container in a well-ventilated place
  - S16 Keep away from sources of ignition - No smoking
  - S25 Avoid contact with eyes
  - S36/37 Wear suitable protective clothing and gloves
  - S45 In case of accident or if you feel unwell, seek medical advice immediately (show label where possible)
  - S46 If swallowed, seek medical advice immediately and show this container or label
  - S53 Avoid exposure - obtain special instruction before use
  - S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label

Additional Statements:

Emergency Overview:

- WARNING! FLAMMABLE LIQUID AND VAPOR. Vapor may cause flash fire. May 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. Skin contact may cause dermatitis. Possible aspiration hazard. Skin absorption may cause systemic toxicity. Possible reproductive effects based on animal studies.

Potential Health Effects:

- Eyes: May cause eye irritation with reversible corneal damage.
- Skin: Contact with skin can produce irritation and dermatitis. May be harmful if absorbed through the
- skin.
- Ingestion: May cause nausea, diarrhea and possibly systemic toxicity if swallowed. Possible aspiration hazard. This product, if vomited, may be aspirated into the lungs causing chemical pneumonia which may be life threatening.
- Inhalation: Inhalation may cause upper respiratory irritation.

Label Statements:

- WARNING! FLAMMABLE LIQUID AND VAPOR. Vapor may cause flash fire. May 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. Skin contact may cause dermatitis. Possible aspiration hazard. Skin absorption may cause systemic toxicity. Possible reproductive effects based on animal studies
- Avoid contact with eyes, skin and clothing
- Avoid breathing vapors.
- Wash thoroughly after handling.
- Launder contaminated clothing before re-use.
- Use only with adequate ventilation.
- Wear chemical safety goggles and face shield, gloves, approved respirator for protection against organic vapors and other protective equipment while handling (consult SDS).
- Keep away from heat, sparks and flame.
- Keep container closed

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: 2
Flammability: 3	Flammability: 3
Reactivity: 0	Reactivity: 0

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

SDS REVISION DATE: 1/19/14