

# Safety Data Sheet

Issue Date 01-Jun-2010

Revision Date: 31-Oct-2013

Version 1

## 1. IDENTIFICATION

### Product Identifier

**Product Name** ARROW Low-VOC Solvent Cement for ABS Plastic Pipe

### Other means of identification

**SDS #** AAC-1604

**UN/ID No** UN1133

**Product Code** 1604, AA-1604, AA-1612, AA-1620

### Recommended use of the chemical and restrictions on use

**Recommended Use** Low-VOC solvent cement for ABS plastic pipe

### Details of the supplier of the safety data sheet

#### **Supplier Address**

Arrow Adhesives Company  
5457 Spalding Dr.  
Norcross, GA 30092

### Emergency Telephone Number

**Company Phone Number** 1-800-678-9058

**Emergency Telephone (24 hr)** INFOTRAC 1-352-323-3500 (International)

1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

**Appearance** Liquid of various colors

**Physical State** Liquid

**Odor** Ether-like

### Classification

Serious eye damage/eye irritation	Category 2
Specific target organ toxicity (single exposure)	Category 3
Flammable Liquids	Category 2

### Hazards Not Otherwise Classified (HNOC)

May be harmful if swallowed

### Signal Word

**Danger**

### Hazard Statements

Causes serious eye irritation

May cause drowsiness or dizziness

Highly flammable liquid and vapor



**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
 Avoid breathing dust/fume/gas/mist/vapors/spray  
 Use only outdoors or in a well-ventilated area  
 Keep away from heat/sparks/open flames/hot surfaces. — No smoking  
 Keep container tightly closed  
 Ground/bond container and receiving equipment  
 Use explosion-proof equipment  
 Use only non-sparking tools  
 Take precautionary measures against static discharge  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Keep cool

**Precautionary Statements - Response**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 Immediately call a POISON CENTER or doctor/physician  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 Immediately call a POISON CENTER or doctor/physician  
 IF SWALLOWED: Call a poison center or doctor/physician  
 Rinse mouth  
 IN CASE OF FIRE: Use CO<sub>2</sub>, dry chemical, or foam for extinction

**Precautionary Statements - Storage**

Store in a well-ventilated place. Keep container tightly closed  
 Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**WHMIS Classification**

Class B-Division 2 Class D-Division 2A Class D-Division 2B

**Unknown Acute Toxicity**

30% of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Methyl ethyl ketone	78-93-3	Proprietary
Acetone	67-64-1	Proprietary
ABS Resin	9003-56-9	Proprietary

\* The exact percentage (concentration) of composition has been withheld as a trade secret

### 4. FIRST-AID MEASURES

**First Aid Measures****Eye Contact**

In case of irritation from airborne exposure, move to fresh air. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek immediate medical attention/advice.

**Skin Contact**

Take off contaminated clothing. Wash with soap and water. If symptoms persist, call a physician. Wash contaminated clothing before reuse.

<b>Inhalation</b>	Remove to fresh air. If symptoms persist, call a physician. If breathing is difficult, give oxygen. Get medical attention immediately.
<b>Ingestion</b>	Rinse mouth. Seek medical attention. If drowsy or unconscious, do not give anything by mouth; place individual on the left side with head down. Do not induce vomiting.

**Most important symptoms and effects**

<b>Symptoms</b>	Exposed individuals may experience eye tearing, redness, and discomfort. Prolonged or repeated skin contact may result in dermatitis (red, dry skin). May cause nose and throat irritation, with possible central nervous system effects. Long term overexposure may cause liver and kidney damage. May cause respiratory irritation. Fatigue and weakness. May cause drowsiness or dizziness.
-----------------	--

**Indication of any immediate medical attention and special treatment needed**

<b>Notes to Physician</b>	Treat symptomatically. Individuals with chronic respiratory, skin, kidney, or liver disorders may be at increased risk from exposure. May cause conjunctivitis with prolonged or repeated eye exposure.
---------------------------	---

## 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**

Foam. Carbon dioxide (CO<sub>2</sub>). Dry chemical.

**Unsuitable Extinguishing Media** Not determined.

**Specific Hazards Arising from the Chemical**

Highly flammable liquid and vapor. Class IB Flammable Liquid. Vapors may travel to source of ignition and flash back.

**Hazardous Combustion Products** Carbon oxides. Various hydrocarbon vapors and toxic gases.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

<b>Personal Precautions</b>	Use personal protective equipment as required. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Persons not wearing proper personal protective equipment should be excluded from area of spill.
<b>Environmental Precautions</b>	Do not allow into any sewer, on the ground or into any body of water. See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up**

<b>Methods for Containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for Clean-Up</b>	Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal. For waste disposal, see section 13 of the SDS.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

#### **Advice on Safe Handling**

Use personal protection recommended in Section 8. Do not eat, drink or smoke when using this product. Avoid breathing vapors or mists. Ground/bond container and receiving equipment. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Use spark-proof tools and explosion-proof equipment. Take precautionary measures against static discharges. Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, solid) all hazard precautions given in the data sheet must be observed. Avoid prolonged contact with eyes, skin, and clothing. Wash face, hands, and any exposed skin thoroughly after handling. Use only outdoors or in a well-ventilated area.

### Conditions for safe storage, including any incompatibilities

#### **Storage Conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Store containers upright. Store away from heat, sparks, flame.

#### **Incompatible Materials**

Oxidizers. Acids. Bases.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Acetone 67-64-1	STEL: 750 ppm TWA: 500 ppm	TWA: 1000 ppm TWA: 2400 mg/m <sup>3</sup> (vacated) TWA: 750 ppm (vacated) TWA: 1800 mg/m <sup>3</sup> (vacated) STEL: 2400 mg/m <sup>3</sup> The acetone STEL does not apply to the cellulose acetate fiber industry. It is in effect for all other sectors (vacated) STEL: 1000 ppm	IDLH: 2500 ppm TWA: 250 ppm TWA: 590 mg/m <sup>3</sup>
Methyl ethyl ketone 78-93-3	STEL: 300 ppm TWA: 200 ppm	TWA: 200 ppm TWA: 590 mg/m <sup>3</sup> (vacated) TWA: 200 ppm (vacated) TWA: 590 mg/m <sup>3</sup> (vacated) STEL: 300 ppm (vacated) STEL: 885 mg/m <sup>3</sup>	IDLH: 3000 ppm TWA: 200 ppm TWA: 590 mg/m <sup>3</sup> STEL: 300 ppm STEL: 885 mg/m <sup>3</sup>

### Appropriate engineering controls

#### **Engineering Controls**

Apply technical measures to comply with the occupational exposure limits. Ventilation systems. Showers. Eyewash stations.

### Individual protection measures, such as personal protective equipment

#### **Eye/Face Protection**

Splash goggles or safety glasses.

#### **Skin and Body Protection**

Rubber gloves. Use body protection appropriate for task.

#### **Respiratory Protection**

Not required under normal conditions. If recommended levels are exceeded, respiratory protection must be selected to assure compliance with OSHA Standard 29CFR 1910.134.

**General Hygiene Considerations** Wash face, hands and any exposed skin thoroughly after handling.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical State</b>	Liquid	<b>Odor</b>	Ether-like
<b>Appearance</b>	Liquid of various colors	<b>Odor Threshold</b>	Not determined
<b>Color</b>	Various Black Milky		

Property	Values	Remarks • Method
pH	Not available	
Melting Point/Freezing Point	Not determined	
Boiling Point/Boiling Range	56 °C / 133 °F	
Flash Point	-9 °C / 15 °F	
Evaporation Rate	6.0	(butyl acetate = 1)
Flammability (Solid, Gas)	n/a-liquid	
Upper Flammability Limits	12.8%	
Lower Flammability Limit	1.8%	
Vapour Pressure	70 mm Hg	@ 20°C (68°F)
Vapor Density	2.5	(Air=1)
Specific Gravity	0.86	
Water Solubility	Negligible	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	
VOC Content	Maximum VOC emissions when applied and tested per SCAQMD Rule 1168, Test Method 316A is <= 325 g/L	

## 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions.

### Chemical Stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.
---------------------------------	--

### Conditions to Avoid

Avoid heat, sparks, open flames and other ignition sources.

### Incompatible Materials

Oxidizers. Acids. Bases.

### Hazardous Decomposition Products

Carbon oxides. Hydrogen chloride. Other various hydrocarbons.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

<b>Eye Contact</b>	Causes serious eye irritation.
<b>Skin Contact</b>	Avoid contact with skin.
<b>Inhalation</b>	Avoid breathing vapors or mists.
<b>Ingestion</b>	May be harmful if swallowed.

### Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Acetone 67-64-1	= 5800 mg/kg ( Rat )	-	-
Methyl ethyl ketone 78-93-3	= 2737 mg/kg ( Rat )	= 6480 mg/kg ( Rabbit )	-

### Information on physical, chemical and toxicological effects

**Symptoms** Please see section 4 of this SDS for symptoms.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen. However, the product as a whole has not been tested.

Chemical Name	ACGIH	IARC	NTP	OSHA
ABS Resin 9003-56-9		Group 3		

#### Legend

*IARC (International Agency for Research on Cancer)*

*Group 3 IARC components are "not classifiable as human carcinogens"*

**STOT - single exposure** May cause respiratory irritation.

### Numerical measures of toxicity

Not determined

**Unknown Acute Toxicity** 30% of the mixture consists of ingredient(s) of unknown toxicity.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

### Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Acetone 67-64-1		4.74 - 6.33: 96 h Oncorhynchus mykiss mL/L LC50 6210 - 8120: 96 h Pimephales promelas mg/L LC50 static 8300: 96 h Lepomis macrochirus mg/L LC50	EC50 = 14500 mg/L 15 min	10294 - 17704: 48 h Daphnia magna mg/L EC50 Static 12600 - 12700: 48 h Daphnia magna mg/L EC50
Methyl ethyl ketone 78-93-3		3130 - 3320: 96 h Pimephales promelas mg/L LC50 flow-through	EC50 = 3403 mg/L 30 min EC50 = 3426 mg/L 5 min	520: 48 h Daphnia magna mg/L EC50 5091: 48 h Daphnia magna mg/L EC50 4025 - 6440: 48 h Daphnia magna mg/L EC50 Static

### Persistence/Degradability

Not determined.

### Bioaccumulation

Not determined.

### Mobility

Chemical Name	Partition Coefficient
Methyl ethyl ketone 78-93-3	0.29
Acetone 67-64-1	-0.24

### Other Adverse Effects

Not determined

## 13. DISPOSAL CONSIDERATIONS

### Waste Treatment Methods

#### **Disposal of Wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

#### **Contaminated Packaging**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

### US EPA Waste Number

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Acetone 67-64-1		Included in waste stream: F039		U002
Methyl ethyl ketone 78-93-3	U159	Included in waste streams: F005, F039	200.0 mg/L regulatory level	U159

**California Hazardous Waste Status**

Chemical Name	California Hazardous Waste Status
Methyl ethyl ketone 78-93-3	Toxic Ignitable
Acetone 67-64-1	Ignitable

**14. TRANSPORT INFORMATION**

**Note** Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances. Shipments of containers holding 1 liter or less in volume may qualify for a "Limited Quantity" exception. Refer to 49 CFR 173.150 for additional information.

**DOT**  
 UN/ID No UN1133  
 Proper Shipping Name Adhesives  
 Hazard Class 3  
 Packing Group II

**IATA**  
 UN/ID No UN1133  
 Proper Shipping Name Adhesives  
 Hazard Class 3  
 Packing Group II

**IMDG**  
 UN/ID No UN1133  
 Proper Shipping Name Adhesives  
 Hazard Class 3  
 Packing Group II

**15. REGULATORY INFORMATION**

**International Inventories**

**TSCA** Listed

**Legend:**

- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List*
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*
- ENCS - Japan Existing and New Chemical Substances*
- IECSC - China Inventory of Existing Chemical Substances*
- KECL - Korean Existing and Evaluated Chemical Substances*
- PICCS - Philippines Inventory of Chemicals and Chemical Substances*

**US Federal Regulations**

**CERCLA**

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Methyl ethyl ketone 78-93-3	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Acetone 67-64-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ



**SARA 313**

Not determined

**US State Regulations**

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Acetone 67-64-1	X	X	X
Methyl ethyl ketone 78-93-3	X	X	X

**16. OTHER INFORMATION**

<b><u>NEPA</u></b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Instability</b>	<b>Special Hazards</b>
	2	3	1	None
<b><u>HMIS</u></b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Physical Hazards</b>	<b>Personal Protection</b>
	2	3	1	G

Issue Date: 01-Jun-2010  
 Revision Date: 31-Oct-2013  
 Revision Note: New format

**Disclaimer**

The information provided in 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 designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

**End of Safety Data Sheet**