Safety Data Sheet

Issue Date: 01-Jun-2009 Revision Date: 20-Nov-2013 Version 1

1. IDENTIFICATION

Product Identifier

Product Name ARROW 921 Low-VOC Primer-Cleaner for PVC and CPVC Plastic Pipe

Other means of identification

SDS # AAC-921 **Product Code** 921, S-921 **UN/ID No** UN1993

Recommended use of the chemical and restrictions on use

Recommended Use Low-VOC Primer-Cleaner for PVC and CPVC 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
Carcinogenicity	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 Suspected of causing cancer May cause respiratory irritation. May cause drowsiness or dizziness Highly flammable liquid and vapor







Precautionary Statements - Prevention

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Use personal protective equipment as required

Wash face, hands and any exposed skin thoroughly after handling

Wear eye/face protection

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

Keep cool

Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention

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

IN CASE OF FIRE: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up

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

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Methyl ethyl ketone	78-93-3	Proprietary
Acetone	67-64-1	Proprietary
Tetrahydrofuran	109-99-9	Proprietary

^{**}If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.**

4. FIRST-AID MEASURES

First Aid Measures

General Advice If exposed or concerned: Get medical advice/attention.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek

immediate medical attention/advice.

Skin Contact Wash with soap and water. Take off contaminated clothing. Wash contaminated clothing

before reuse. If skin irritation persists, call a physician.

Inhalation Remove to fresh air. If symptoms persist, call a physician. If breathing is difficult, administer

oxygen; seek medical attention immediately.

Ingestion If drowsy or unconscious, do not give anything by mouth; place individual on the left side

with head down. Do not induce vomiting. Call a physician or Poison Control Center.

Most important symptoms and effects

Symptoms Direct eye contact may cause stinging, tearing and redness. May cause dermatitis or

irritation in some individuals upon prolonged contact. May include redness, drying and cracking of skin. May cause nose and throat irritation, with possible central nervous system effects. Long term overexposure may cause liver and kidney damage. Overexposure by inhalation may cause CNS depression- drowsiness, dizziness, confusion or loss of

coordination.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Foam. Carbon dioxide (CO2). Dry chemical.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Class IB Flammable Liquid. Combustion products may be toxic. Vapors may travel to source of ignition and flash back.

Hazardous Combustion Products Carbon oxides. Hydrocarbons.

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

Personal Precautions 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.

Environmental Precautions Prevent runoff to sewers, streams, and other bodies of water.

Methods and material for containment and cleaning up

Methods for Containment Stop spill at source.

Methods for Clean-Up 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. Spills and releases may have to be reported to Federal and/or local

authorities. See section 15.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protection recommended in Section 8. Wash thoroughly after handling. Avoid breathing vapors or mists. Use only in well-ventilated areas. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Use spark-proof tools and explosion-proof equipment. Ground/bond container and receiving 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 contact with skin, eyes or clothing.

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.

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/m³ (vacated) TWA: 750 ppm (vacated) TWA: 1800 mg/m³ (vacated) STEL: 2400 mg/m³ 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 ³
Methyl ethyl ketone 78-93-3	STEL: 300 ppm TWA: 200 ppm	TWA: 200 ppm TWA: 590 mg/m³ (vacated) TWA: 200 ppm (vacated) TWA: 590 mg/m³ (vacated) STEL: 300 ppm (vacated) STEL: 885 mg/m³	IDLH: 3000 ppm TWA: 200 ppm TWA: 590 mg/m³ STEL: 300 ppm STEL: 885 mg/m³
Tetrahydrofuran 109-99-9	STEL: 100 ppm TWA: 50 ppm S*	TWA: 200 ppm TWA: 590 mg/m³ (vacated) TWA: 200 ppm (vacated) TWA: 590 mg/m³ (vacated) STEL: 250 ppm (vacated) STEL: 735 mg/m³	IDLH: 2000 ppm TWA: 200 ppm TWA: 590 mg/m³ STEL: 250 ppm STEL: 735 mg/m³

Appropriate engineering controls

Engineering Controls Ventilation systems. Eyewash stations. Showers. Mechanical exhaust (explosion proof)

may be required.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Splash goggles or safety glasses.

Skin and Body Protection Rubber gloves. Wear protective clothing appropriate for task (coveralls, apron, Tyvek suit).

Respiratory Protection Not required with normal usage. Wear approved respirator in confined spaces or limited

ventilation.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State Liquid

AppearanceLiquid of various colorsOdorEther-likeColorVariousOdor ThresholdNot determined

<u>Property</u> <u>Values</u> <u>Remarks • Method</u>

pH Not available

Melting Point/Freezing PointNot determinedBoiling Point/Boiling Range56 °C / 133 °FFlash Point-20 °C / -4 °F

Evaporation Rate 8.0 (butyl acetate = 1)

Flammability (Solid, Gas) n/a-liquid
Upper Flammability Limits 12.8%
Lower Flammability Limit 1.8%

 Vapor Pressure
 182 mm Hg
 @ 20°C (68°F)

 Vapor Density
 2.5
 (Air=1)

Specific Gravity 0.80 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 550 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.

Hazardous Polymerization 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. Hydrocarbons.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Causes serious eye irritation.

Skin Contact Avoid contact with skin.

Inhalation Avoid breathing vapors or mists.

Ingestion 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)	-
Tetrahydrofuran 109-99-9	= 1650 mg/kg (Rat)	-	= 53.9 mg/L (Rat) 4 h = 180 mg/L (Rat) 1 h

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 Suspected of causing cancer.

Chemical Name	ACGIH	IARC	NTP	OSHA
Tetrahydrofuran	A3			
109-99-9				

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

STOT - single exposure May cause respiratory irritation. May cause drowsiness or dizziness.

Numerical measures of toxicity

Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

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

Chemical Name	Algae/aquatic plants	Fish	Toxicity to	Crustacea
			microorganisms	
Acetone		4.74 - 6.33: 96 h	EC50 = 14500 mg/L 15 min	10294 - 17704: 48 h Daphnia
67-64-1		Oncorhynchus mykiss mL/L		magna mg/L EC50 Static
		LC50 6210 - 8120: 96 h		12600 - 12700: 48 h Daphnia
		Pimephales promelas mg/L		magna mg/L EC50
		LC50 static 8300: 96 h		
		Lepomis macrochirus mg/L		
		LC50		
Methyl ethyl ketone		3130 - 3320: 96 h	EC50 = 3403 mg/L 30 min	520: 48 h Daphnia magna
78-93-3		Pimephales promelas mg/L	EC50 = 3426 mg/L 5 min	mg/L EC50 5091: 48 h
		LC50 flow-through		Daphnia magna mg/L EC50
				4025 - 6440: 48 h Daphnia
				magna mg/L EC50 Static
Tetrahydrofuran		1970 - 2360: 96 h		5930: 24 h Daphnia magna
109-99-9		Pimephales promelas mg/L		mg/L EC50
		LC50 flow-through 2700 -		
		3600: 96 h Pimephales		
		promelas mg/L LC50 static		

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Chemical Name	Partition Coefficient
Methyl ethyl ketone	0.29
78-93-3	
Acetone	-0.24
67-64-1	
Tetrahydrofuran	0.45
109-99-9	

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		Included in waste stream:		U002
67-64-1		F039		
Methyl ethyl ketone	U159	Included in waste streams:	200.0 mg/L regulatory level	U159
78-93-3		F005, F039		
Tetrahydrofuran				U213
109-99-9				

California Hazardous Waste Status

Chemical Name	California Hazardous Waste Status
Methyl ethyl ketone	Toxic
78-93-3	Ignitable
Acetone	Ignitable
67-64-1	
Tetrahydrofuran	Toxic
109-99-9	Ignitable

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including

exemptions and special circumstances.

DOT

UN/ID No UN1993

Proper Shipping Name Flammable liquid, n.o.s. (Methyl ethyl ketone, Acetone)

Hazard Class 3
Packing Group II

IATA

UN/ID No UN1993

Proper Shipping Name Flammable liquid, n.o.s. (Methyl ethyl ketone, Acetone)

Hazard Class 3
Packing Group ||

IMDG

UN/ID No UN1993

Proper Shipping Name Flammable liquid, n.o.s. (Methyl ethyl ketone, Acetone)

Hazard Class 3
Packing Group ||

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	5000 lb		RQ 5000 lb final RQ
78-93-3			RQ 2270 kg final RQ
Acetone	5000 lb		RQ 5000 lb final RQ
67-64-1			RQ 2270 kg final RQ
Tetrahydrofuran	1000 lb		RQ 1000 lb final RQ
109-99-9			RQ 454 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
Tetrahydrofuran 109-99-9	X	X	X

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazards	Flammability	Instability	Special Hazards
	2	3	1	None
HMIS_	Health Hazards	Flammability	Physical Hazards	Personal Protection
	2	3	1	G

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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