

Material Safety Data Sheet

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Product Identification

Product Name: AV-333 Injectaflex

Composition/Ingredient Information

Ingredient Name / CAS Number	Exposure Limits	Concentration
Urethane Prepolymer CAS #57516-88-8	OSHA: Not established. ACGIH: Not established.	Trade Secret
Acetone CAS #67-64-1	OSHA: 5 mg/m ³ ACGIH: Not established.	Trade Secret
Toluene 2,4-Diisocyanate CAS #584-84-9	OSHA PEL: 0.005 ppm ACGIH TWA: 0.005 ppm	Trade Secret
Toluene 2,6-Diisocyanate CAS #91-08-7	OSHA PEL: 0.005 ppm ACGIH TWA: 0.005 ppm	Trade Secret

Hazards Information

Primary Route(s) of Entry: Skin absorption and inhalation.

Health Hazards: Severe eye irritation, severe skin and upper respiratory irritation are possible.

Eye Contact: Vapors are irritating to the eyes. Splashes, may cause severe irritation, with redness, tearing, blurred vision.

Skin Contact: Exposure can cause defatting of the skin. Causes redness swelling, drying and cracking of the skin.

Prolonged or repeated contact may cause moderate dermatitis.

Ingestion: May have corrosive effects on the lining of the mouth and stomach. May produce abdominal pain, nausea, diarrhea, and vomiting.

Inhalation: Exposure can cause upper respiratory tract irritation. May cause dizziness coughing, dullness, and headache. Higher concentrations can produce Central Nervous System depression, narcosis, and unconsciousness. Prolonged or repeated overexposure may cause blood disorders, gastrointestinal disturbances and lung damage; kidneys, liver, and nervous system may be affected.

First Aid Measures

Eyes: Flush with plenty of water for at least 15 minutes. Get immediate medical attention.

Skin: Wash thoroughly with soap and water. If irritation develops, consult a physician. All contaminated clothing should be washed prior to reuse.

Inhalation: Remove to fresh air. If breathing has stopped administer artificial respiration. If breathing is difficult, administer oxygen and get medical attention. Asthma like symptoms may develop.

Ingestion: Vomiting may occur spontaneously. Do not induce vomiting. If vomiting occurs, keep head below hips to prevent aspiration into lungs and seek immediate medical attention. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis. (Never give anything by mouth to an unconscious or convulsing person.)

Fire and Explosion Hazards

Flash Point: 10.4°F (-12°C) COC

Flammable Limits: LEL: Not Determined

Extinguishing Media: Dry chemical, alcohol foam, carbon dioxide, or water. Water may be ineffective.

Special Fire Fighting Procedures: Wear self-contained breathing apparatus and full protective clothing.

Unusual Fire and Explosion Hazards: This material will form vapors when above flash point. These vapors can travel along surfaces to a distant ignition source and flash back. Sealed containers may rupture when heated.

Accidental Release Measures

Spill or Leak Procedures: Eliminate all ignition sources and evacuate spill area; with adequate ventilation, cover the spill with an inert absorbent material. Pour isocyanate decontaminant solution (90% water, 8% concentrated ammonia, 2% detergent) on spill and allow to react for 10 minutes. Alternately, pour water on the spill and allow reaction to occur for more than 30 minutes. Place in a proper waste container. Do not seal the drum for 48 hours to avoid possible pressure build up. Wear respirator and other protective equipment for protection of eyes and skin during cleanup.

Handling and Storage

Storage: Protect against physical damage. Store in a cool dry area well ventilated area, away from ignition sources. Separate from incompatible materials. Containers should be bonded and grounded for transfers, to avoid static sparks. Handling: Use only in well ventilated areas, unless used with recommended respiratory protection. Empty containers of this material may be hazardous when empty since they retain product residues; observe all warnings and precautions listed for the product.

Exposure Controls and Personal Protection

Respiratory Protection: Wear NIOSH/MSHA approved supplied air respirator or self-contained breathing apparatus when airborne concentrations are unknown or exceed permissible limits. Half face organic vapor respirators may be worn for up to ten times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face organic vapor respirator may be worn for up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. Air purifying respirators do not protect workers in oxygen deficient atmospheres. Ventilation: Mechanical general/local exhaust to control vapor or mist below maximum exposure limits.

Protective Clothing: Wear impervious clothing, including boots, gloves, lab coat, apron or coveralls.

Eye Protection: Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain an eye wash fountain and quick drench facilities in the work area.

Other Protective Equipment: Use impervious rubber gloves and boots.

Work/Hygienic Practices: Wash with soap and water after handling. Remove contaminated clothing and wash before next use.

Physical and Chemical Properties

Appearance and Odor: Transparent brown liquid with an acetone odor.

Boiling Point: 132°F (55°C)

Vapor Pressure (mm Hg @ 20°C): 180

Vapor Density: 2.0

Specific Gravity (water=1): 1.023 (+0.005)

Melting Point: Not determined

Evaporation Rate (butyl acetate): 1.90

Solubility in Water: Soluble in water

Stability and Reactivity

Stability: Stable under normal storage and handling conditions.

Incompatibility (materials to avoid): Strong bases, water, amines, alcohols, and oxidizing materials.

Hazardous Decomposition Products: Carbon dioxide, carbon monoxide, toluene diisocyanate vapors, hydrogen cyanide gas, and oxides of nitrogen.

Polymerization: will not occur.

Toxicological Information

Carcinogenicity: NTP and IARC consider Toluene Diisocyanate a potential carcinogen

IARC monographs:

Teratogenicity: None Determined

Reproductive Toxicity: Acetone is being investigated as a reproductive effector, a tumorigen, and a mutagen.

Mutagenicity: None Determined

Synergistic products: None

OSHA regulated: Yes

Ecological Information

When released into the soil, this material is expected to readily biodegrade. If released into the soil without catalysts, this material is expected to leach into the groundwater. When released into the soil, the acetone portion will evaporate quickly. When released into water polymerization may occur. The acetone is expected to disperse and quickly evaporate. This material is not expected to be toxic to aquatic life. For acetone, the LC50/96 hour values for fish are over 100 mg/l.

Disposal Considerations

Dispose of in accordance with local, state, and federal regulations.

Transport Information

Proper Shipping Name: Waste Flammable Liquid, (contains: acetone)

DOT Hazard Classification: 3

UN/NA Number: UN1993

Packaging Group: PG II

Freight Class:

DOT Labels Required: Flammable

DOT Placards Required: Flammable

Regulatory Information

	TSCA	SARA 302		SARA 313 LIST	CERCLA	RCRA 261.33	TSCA 8(d)
		RQ	TPQ				
Urethane Prepolymer (57516-88-8):	NO	NO	NO	NO	NO	NO	NO
Acetone (67-64-1):	NO	NO	NO	YES	5000	U002	NO
2,4 Toluene Diisocyanate (584-84-9):	YES	100		YES	YES	U223	YES
2,6 Toluene Diisocyanate (91-08-7):	YES	100		YES	YES	U223	YES

Other Information

The information on this MSDS is accurate to the best of Avanti International's knowledge. Avanti International makes no expressed or implied warranty, and in no case shall be liable for consequential, special or indirect damages resulting from the use or handling of this product.