

MATERIAL SAFETY DATA SHEET

DATE: 01/11/99

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Section 1

MRO Solutions L.L.C.
5645 West Howard Street
Niles, IL 60714

HAZARD RATING

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For Chemical Emergency Only:

Telephone for Information: (847) 588-2480

HMIS CODES: H F R P

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PRODUCT IDENTIFICATION: SOLUTION 4 INSTANT ADHESIVE**Section 2 - HAZARDOUS INGREDIENTS INFORMATION:**

Hazardous Components (Common Names, CAS Number)	OSHA	ACGIH	OTHER	%
	PEL	TLV	LIMITS OPTION	
Ethyl-2-Cyanoacrylate (7085-85-0)	NE	NE	2ppm TWA	60-100
Poly (Methyl Methacrylate) (9011-14-7)	NE	NE		10-30
Hydroquinone* (123-31-9)	2mg/m3	2mg/m3		0-1

*This ingredient is subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments & Reauthorization Act of 1986 (SARA) and 40 CFR 372.

Section 3 - PHYSICAL/CHEMICAL CHARACTERISTICS:

Boiling Point: 149 F
 Vapor Density (Air=1): nil-NE
 Vapor Pressure (mm Hg): 1 @ 20 C
 Solubility in Water: Insoluble, material reacts to hardened mass for non-hazardous waste.
 Appearance & Odor: Transparent water-white to straw colored liquid with stimulative odor.

Specific Gravity (H2O=1): 1.05
 Melting Point: NE
 Evaporation Rate (Butyl acetate=1): nil-NE

Section 4 - FIRE AND EXPLOSION HAZARD DATA:

Flash Point (Method Used): 176 F (TCC)
 Extinguishing Media: Flush with large amounts of water or dry chemical extinguisher.
 Special Fire Fighting Procedures: Fumes may be irritating if not burning and require air supply with goggles while applying large amounts of water or dry chemical extinguisher.
 Unusual Fire and Explosion Hazards: None. Combustible requiring the above procedures.

Flammable Limits: LEL: NE UEL: NE

Section 5 - REACTIVITY DATA:

Stability: Stable XX Conditions to Avoid: Excessive heat above 176 F, moisture and alkalines. Stable up to 122 F. Store in a cool dry place.
 Incompatibility (Materials to Avoid): Polymerized by water, alcohol, amines, alkaline materials and direct UV.
 Hazardous Decomposition Products: Combustible by-products of carbon monoxide/dioxide.
 Hazardous Polymerization: May Not Occur XX

Section 6 - HEALTH HAZARD DATA:

Route(s) of Entry: Inhalation: Yes Skin: NO Ingestion: LD50 = 12.2cc/kg
 Health Hazards (Acute and Chronic): (mice)

Acute - Irritates eyes, mucous membranes.

Chronic - No residual effects of acute properties.

Carcinogenicity: NTP: No IARC Monographs: No OSHA Regulated: No

Signs and Symptoms of Exposure & First Aid Procedures:

Eye contact - Tearing from eye irritation. Remove to fresh air. Flush areas of contact with water. Adhesive will disassociate from eye/eyelids over time, usually within several hours. Temporary weeping of eyes/double vision may be experienced until clearance is achieved.

Skin contact - Immerse bonded areas in warm, soapy water. Peel or roll skin apart. Remove cured adhesive with several applications of warm, soapy water. Prolonged or repeated contact at elevated levels may cause dermatitis in sensitive individuals.

Inhalation - Irritation of mucous membranes/coughing. Remove to fresh air. Prolonged or repeated exposure at elevated levels may produce allergic reactions with asthma-like symptoms in sensitive individuals.

Ingestion - Lips may become stuck together: apply copious amounts of warm water & encourage wetting/pressure from saliva inside mouth. Peel or roll (do not pull) lips apart. It is almost impossible to swallow cyanoacrylate as adhesive solidifies upon contact with saliva & may adhere to inside of mouth. Saliva will lift adhesive in 1-2 days, avoid swallowing adhesive after detachment.

Medical Conditions Generally Aggravated by Exposure: Pre-existing skin, eye and respiratory disorders may be aggravated by exposure.

Section 7 - PRECAUTIONS FOR SAFE HANDLING AND USE:

Steps to Be Taken in Case Material is Released or Spilled: Polymerize with water. Solid material may be scraped from surface.

Waste Disposal Method: Incinerate solid combustible waste or dump as chemical waste according to local, state and federal regulations.

Precautions to Be Taken in Handling and Storing: Avoid moisture, direct UV-sunlight and do not store above 25 C. Keep containers closed tightly when not in use. Ideal storage: 5-10 C.

Other Precautions: Avoid breathing vapor, contact with eyes/skin. Do not store at -5 C which freezes product to useless state. Product not damaged by freezing.

Section 8 - CONTROL MEASURES:

Respiratory Protection (Specify Type): A NIOSH-approved organic vapor canister may be used to maintain vapor concentration below TLV.

Ventilation: Local Exhaust: To maintain vapor concentration below TLV.

Mechanical (General): Large amounts used to 2ppm.

Protective Clothing or Equipment: Safety glasses with side shield, Vinyl (polyethylene) non-sticking gloves, rubber apron to protect clothing.

Work/Hygienic Practices: Soap and water helps remove adhesive from skin.

NE = Not established

The data contained herein is based upon information that MRO Solutions L.L.C. believes to be reliable. Users of this product have the responsibility to determine the suitability of use and to adopt all necessary precautions to ensure the safety and protection of property and persons involved in said use. All statements or suggestions are made without warranty, express or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof.