

Material Safety Data Sheet: SMA500

CHEMTRAC EMERGENCY #: 1-800-424-9300 1-703-527-3887

I. PRODUCT IDENTIFICATION

Product Name: SMA500 Product Type: Cyanoacrylate Ester

II. COMPOSITION

Ingredients:	%
Ethyl Cyanoacrylate	95-100
Hydroquinone	0-0.5
Poly (Methyl Methacrylate)	3-5

III. CHEMICAL AND PHYSICAL PROPERTIES

Vapor Pressure	Less than 0.2 mm 75 F
Vapor Density	Approximately 3
Solubility in Water	Polymerized by water
Specific Gravity	1.05
Boiling Point	More than 300°F
Volatile Organic Compound (EPA Method 24)	98.8%; 1037.4 g/l
Evaporation Rate: (Ether = 1)	Not available
pH:	Does not apply
Appearance	Clear liquid
Odor	Sharp, Irritating

IV. FLAMMABILITY AND EXPLOSIVE PROPERTIES

Flash point	150 - 200° F			
Estimated NFPA Code	Health Hazard	2	Fire Hazard	2
	Reactivity Hazard	2	Specific Hazard	No water
Estimated HMIS Code	Health Hazard	2	Flammability Hazard	2
	Reactivity Hazard	2	Personal Protection	See Section X
Explosive Limits				
(% by vol. in air) Lower	Not available	(% by vol. in air) Upper	Not available	
Recommended Extinguishing Agents	Carbon dioxide, foam, dry chemical			
Hazardous Products Formed				
by fire or thermal decomp.	Irritating organic fragments			
Unusual Fire or Explosion Hazards	None			
Compressed Gases	None			
Pressure at room temp.	Does not apply			

V. SPILL OR LEAK AND DISPOSAL PROCEDURES

Steps to be taken in case of spill or leak: Flood with water to polymerize. Soak up with an inert absorbent.
 Recommended methods of disposal: Incinerate following EPA and local regulations.

VI. STORAGE AND HANDLING PROCEDURES

Storage: Store below 75°F to maximize shelf life.
 Handling: Avoid contact with skin and eyes. Avoid breathing vapors.

DOT (49 CFR 172) Proper shipping name

VII. SHIPPING REGULATIONS

Ground:	Unrestricted (not more than 110 gallons); combustible liquid n.o.s. (cyanoacrylate ester solution) (more than 110 gallons)		
Air:	Unrestricted (not more than 1 pint); ORM-A, n.o.s. (cyanoacrylate ester) (1 to 110 gallons); Combustible liquid n.o.s. (cyanoacrylate ester) (more than 110 gallons).		
Hazard class or division	Ground:	Unrestricted (not more than 110 gallons); combustible liquid (more than 110 gallons).	
	Air:	Unrestricted (not more than one pint); ORM-A, n.o.s. (cyanoacrylate ester) (one pint to 110 gallons); Combustible liquid (more than 110 gallons).	
Identification Number	None		
IATA Proper Shipping Name	Unrestricted (not more than one pint); Other regulated substances (more than one pint); Unrestricted (not more than one pint)		
Class or Division	Class 9 (more than one pint)		
UN or ID number	None (not more than one pint) ID 8027 (not more than one pint)		
IMO			
Substance	Not Available		
Marine Pollutant Status	Not Available		
Class	Not Available		
Subsidiary Risk Label	Not Available		
IMDG Code Page	Not Available		
UN Number	Not Available		

VIII. REACTIVITY DATA

Stability: Stable Hazardous Polymerization: Will not occur
Hazardous Decomposition Products (non-thermal): None
Incompatibility: Polymerized by contact with water, alcohol's, amines, alkaline substances

IX. EMERGENCY TREATMENT PROCEDURES

Ingestion: See supplemental page for emergency procedures. Obtain medical attention.
Inhalation: Remove to fresh air. Treat symptomatically.
Skin Contact: See supplemental page for emergency procedures.
Eye Contact: See supplemental page for emergency procedures.

X. PERSONAL PROTECTION

Eyes: Safety glasses or goggles.
Skin: Polyethylene gloves recommended. Do not use cotton gloves.
Ventilation: Positive down-draft exhaust ventilation should be provided to maintain vapor concentrations below TLV.

XI. HEALTH HAZARD DATA

Toxicity: Bonds skin rapidly and strongly. Skin and eye irritant. Estimated oral LD 50 more than 5000 mg/kg. Estimated dermal LD 50 more than 2000 mg/kg.

Primary routes of entry: None known

Signs and symptoms of exposure to: Vapor is irritating to eyes and mucous membranes above TLV. Prolonged and repeated overexposure to vapors may produce allergic reactions with asthma-like symptoms in sensitive individuals.

Existing conditions aggravated by exposure: None known

Exposure Limits	ACGIH	OSHA	OTHER
Ingredients	(TLV)	(PEL)	
Ethyl Cyanoacrylate	None	None	2 ppm TWA
Hydroquinone	2 mg/m3 TWA	2 mg/m3 TWA	None
	Literature Referenced Target	Carcinogen	
Ingredients	Organ and other Health Effects	NTP	IARC OSHA
Ethyl Cyanoacrylate	LUN SKI	No	No
Hydroquinone	No data	No	N/A
Abbreviations:	N/A: Not Applicable	SKI: Skin	LUN: Lung

Other Information

USER RESPONSIBILITY: A bulletin such as this cannot be expected to cover all possible individual situations. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions - in addition to those described herein - are required. Any health hazard and safety information herein should be passed on to your customers or employees, as the case may be.

DISCLAIMER OF LIABILITY: The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the chemical is the sole responsibility of the user. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other nature are made there under with respect to the information contained herein or the chemical to which the information refers. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.

Supplement Information for first aid and casualty on the treatment for adhesion

Cyanoacrylate adhesive is a very fast setting and strong bonding adhesive. They bond to human tissue in seconds. Most accidents are handled by non surgical first aid. Treatment is as follows:

SKIN CONTACT Remove excess adhesive, soak in warm soapy water. The adhesive will come loose from the skin in several hours. Cured adhesive does not present a health hazard. Avoid contact with clothes, fabrics or tissues. Contact with these materials may cause polymerization. The polymerization of large amounts of adhesive will generate heat causing smoke, skin burns and a strong irritating vapor. Wear nitril or polyethylene gloves and an apron when handling large amounts of this adhesive.

SKIN ADHESION First immerse the bonded surface in warm soapy water. Peel or roll the surface apart with the aid of a blunt edge (spoon handle or spatula). Remove adhesive from the skin with soap and water. Do not try to pull surface apart with direct opposing action.

EYELID TO EYELID OR EYEBALL ADHESION If the eyelids are stuck together or bonded to the eyeball, wash thoroughly with warm water and apply a gauze patch. The eye will open without further action in 1 - 4 days. There will be no residual damage. Do not try to open the eyes with manipulation.

ADHESIVE ON THE EYEBALL Cyanoacrylate introduced into the eyes will attach itself to the eye protein and will disassociate from it over intermittent periods, generally covering several hours. This will cause periods of weeping until the clearance has been achieved. During the period of contamination, double vision may be experienced together with a lachrymatory effect. It is important to understand the cause and realize that disassociation will normally occur within a matter of hours. This is true for even large amounts of contamination.

MOUTH If lips are stuck together, apply lots of warm water to the lips to maximize wetting and pressure from saliva from the inside of the mouth. peel or roll the lips apart to separate. Do not try to pull the lips with opposing action. it is almost impossible to swallow cyanoacrylates. The adhesive will solidify and adhere inside the mouth. Saliva will lift the adhesive in half to two days. in case a lump forms in the mouth, position the patient to prevent ingestion of the lump when it detaches.

BURNS Cyanoacrylates give off heat when curing. In rare cases a large drop will increase in temperature enough to cause a burn. Burns should be treated normally after the lump of cyanoacrylate is released from the tissue as described above.

SURGERY

It should never be necessary to use such a drastic method to separate accidentally bonded skin.