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MATERIAL SAFETY DATA SHEET

Item No. S-305, S-310, S-320, S-380, I-16700

1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Type: Cyanoacrylate Ester

2 COMPOSITION, INFORMATION ON INGREDIENTS

Ingredients	CAS No.	%
Poly(methyl methacrylate)	9011-14-7	20-30
Ethyl Cyanoacrylate	7085-85-0	70-80
HYDROQUINONE	123-31-9	0-0.5

Ingredients, which have exposure limits

Exposure Limits Ingredients	(TWA) (TLV)	ACGIH (PEL)	OSHA	OTHER
Ethyl Cyanoacrylate	0.2ppmTWA	None	None	
HYDROQUINONE	2mg/m3TWA	2mg/m3TWA	2mg/m3TWA	4mg/m3 STEL
Exposure Limits Ingredients	(STEL) (TLV)	AGGIH (PEL)	OSHA	

3 HAZARDS IDENTIFICATION

Toxicity: Bonds skin rapidly and strongly
Skin and eye irritant
Estimated oral LD50 more than 5000mg/kg
Estimated dermal LD50 more than 2000mg/kg

Signs and Symptoms of Exposure: Vapor is irritating on eyes and mucous membranes above TLV.
Prolonged and repeated overexposure to vapors may produce
Symptoms of non-allergic asthma in sensitive individuals

4 FIRST AID MEASURES

Ingestion: Ingestion is not likely. See supplemental page for emergency procedures.
Inhalation: Remove to fresh air. If symptoms persist, obtain medical attention
Skin Contact : Soak in Warm water. See supplemental pager for emergency procedures.

Eye Contact: Flush with water. See supplemental page for emergency procedure

5 FIRE FIGHTING MEASURES

Flash Point: 180 F
Method: Tag Closed Cup
Recommended Extinguishing Agents: Carbon dioxide, foam, dry chemical
Special Firefighting Procedures: Not available
Hazardous Products formed by fire or thermal decamp: Irritating organic fragments.
Unusual Fire or Explosion Hazards: None
Explosive Limits (% by volume in air) Lower : Not available
Explosive Limits (% by volume in air) Upper : Not available

6 ACCIDENTAL RELEASE MEASURES

Step to be taken in case of spill or leak: Flood with water to polymerize. Soak up with an inert Absorbent.

7 HANDLING AND STORAGE

Safe Storage; Store below 70F
Handling: Avoid contact with skin and eyes. Avoid breathing vapor.

8 EXPOSURE CONTROLS, PERSONAL PROTECTION

Eyes: Safety glasses or goggles
Skin: PE gloves and aprons. Do not use cotton. See section 12 for additional information
Ventilation: Positive down-draft exhaust ventilation should be provided to maintain vapor concentration below TLV
Respiratory: Not available. See Section 2 for Exposure Limits

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear liquid.
Odor: Sharp, irritation
Boiling Point: 140-160 F @ 3-5 mmHg
PH: Does not apply
Solubility in Water: Polymerized by water
Specific Gravity: 1.05 @ -10 F
Vapor Pressure: Less than 0.2mm
Evaporation Density: Approximately 3
Evaporation Rate(Ether=1) : Not Available

10 STABILITY AND REACTIVITY

Stability: Stable
Hazardous Polymerization: Will not occur
Incompatibility: Polymerized by contact with amines, alkalies, water and alcohols
Conditions to Avoid: Not available

Hazardous Decomposition product (non-thermal): None

11 OTHER INFORMATION

Estimated NFPA Code:
Health Hazard: 2
Fire Hazard: 2
Reactivity Hazard; 1
Specific Hazard: Does not apply

Estimated HMIS Code:
Health Hazard: 2
Flammability Hazard: 2
Reactivity Hazard: 1
Personal Protection: See Section 8

12 OTHER INFORMATION

Cyanoacrylate adhesive is a very fast setting and strong adhesive. It bonds human tissue including Skin in seconds. Experience had shown that accidents due to Cyanoacrylste are handled best by Passive, non-surgical first aid. Treatment of specific types of accidents is given below.

SKIN CONTACT

Remove excess monomer. Soak in warm, soapy water. The monomer will come loose from the skin Several hours. cured monomer does not present a health hazard even when bonded to the skin. Avoid Contact with clothes, fabrics, rags, or tissue. Contact with these materials may cause polymerization. The polymerization of large amounts of monomer will generate heat causing smoke, skin burns, and Strong, irritating vapors, Wear PE gloves and apron when handling large amounts of adhesive.

SKIN ADHESION

First, immerse the bonded surfaces in warm, soapy water. Peel or roll the surfaces apart with the Aid of a blunt edge, e.g.a spatula or a teaspoon handle: then remove adhesive form the skin with Soap and water. Do not try to pull surfaces apart with a direct opposing action**.**

EYELID TO EYELID OR EYEBALL ADHESION

In the event that 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, typically in 1-4days. There will be no residual damage. Do not try to open the eyes by manipulation.

ADHESIVE ON THE EYEBALL

Cyanoacrylate introduced into the eyes will attach itself to the eye protein and well disassociate From it over intermittent periods, generally covering several hours. This will cause periods of Weeping until clearance is achieved. During the period of contamination, double vision may be Experienced together with a lachrymatory effect, And it is important to understand the cause and

Realize that disassociation will normally occur within a matter of hours, Even with gross contamination.

MOUTH

If lips are accidentally stuck together, apply lots of warm water to the lips and encourage maximum Wetting and pressure from saliva inside the mouth. Peel or roll lips apart. Do not try to pull the lips With direct opposing action. It is almost impossible to swallow Cyanoacrylate. The adhesive solidifies And adheres in the mouth. Saliva will lift the adhesive in one 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 on solidification. In rare cases, a large drop will increase in temperature Enough t cause a burn. Burns should be treated normally after the lump of Cyanoacrylate is released From the issue as described above.

SURGERY

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