

Material Safety Data Sheet: ND63

DISTRIBUTED BY NAZDAR

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I. PRODUCT IDENTIFICATION

Product Name: ND63 Product Type: Cyanoacrylate Ester June 16, 2003

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 (TLV)	OSHA (PEL)	OTHER
Ingredients			
Ethyl Cyanoacrylate	None	None	2 ppm TWA
Hydroquinone	2 mg/m ³ TWA	2 mg/m ³ TWA	None

Ingredients	Literature Referenced Target		Carcinogen		
	Organ and other	Health Effects	NTP	IARC	OSHA
Ethyl Cyanoacrylate	LUN SKI	No	No	No	No
Hydroquinone	No data	No	N/A	No	No

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.