



MATERIAL SAFETY DATA SHEET



Prepared in accordance with ISO 11014-1/ ANSI standard
Z400.1-2004

Revision Date: 2/21/2011

MSDS No.: ND2205

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: 388 Superglue

Synonyms: Superglue

Use of the Substance/Preparation: Adhesive

Supplier:

ND Industries, Inc.
1893 Barrett Road
Troy, Michigan 48084
Tel: (248) 288-0000
Fax: 248) 288-0022

Emergency Telephone Number: 24 hr. EMERGENCY CHEMTREC
1-800-424-9300

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW- CAUTION:

Black liquid, with sharp irritating odor. Cyanoacrylate adhesives are a very fast setting and strong adhesive. It bonds human tissue and skin in seconds. Avoid contact with skin and eyes. Avoid breathing vapors. Skin, eyes and inhalation.

Principle Routes of Exposure:

POTENTIAL HEALTH EFFECTS:

Eye Contact:

Irritating to eyes. Causes excessive tearing. Eyelids may bond.

Skin Contact:

Bonds to skin in seconds. May cause skin irritation. Cyanoacrylates have been reported to cause allergic reaction but due to rapid polymerization at the skin surface, an allergic response is rare. Cyanoacrylates generate heat during the cure process and, in rare instances; a large drop can burn the skin.

Inhalation:

Exposure to vapors above the established exposure limit results in respiratory irritation which may lead to difficulty breathing and tightness in the chest.

Ingestion:

Material is not harmful if ingested. Cyanoacrylates are almost impossible to swallow because they solidify in the mouth.

Carcinogenic Effects:

No data available on the product itself. Contains no known carcinogens.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	EINECS Number	Weight %	EU Classification
Ethyl-2 Cyanoacrylate	7085-85-0	230-391-5	80-95	Xi: R36/37/38
Poly Methyl Methacrylate	9011-14-7	n/a	5-10	n/a

4. FIRST AID MEASURES

Skin Contact:	Soak in warm water. Do not pull skin apart.
Eye Contact:	Flush with warm water. If eye lids are bonded closed, release eyelashes with warm water by covering the eye with a wet pad. Do not force eye open.
Inhalation:	Remove to fresh air. If symptoms persist, obtain medical attention.
Ingestion:	Ingestion is unlikely. If lips are accidentally stuck together apply lots of warm water 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 to two days.
Notes to Physician:	Cyanoacrylate adhesive is a very fast setting and strong adhesive. It bonds human tissue and skin in seconds. Experience has shown that accidents due to Cyanoacrylates are best handled by passive, non-surgical first aid.

5. FIRE AND IGNITION INFORMATION

Flash Point	150-200°F, Tag Closed Cup
Explosion Limits in Air – Upper (%):	Not established.
Explosion Limits in Air – Lower (%):	Not established.
OSHA Flammability Classification:	Combustible.
Auto-ignition Temperature:	Not established.
Extinguishing Media:	Foam, Dry Chemical or Carbon Dioxide
Special Protective Equipment for Firefighters:	Fire fighters should wear full turnout gear including self-contained breathing apparatus operated in positive pressure mode.
Specific Hazards:	None.
Hazardous Decomposition and/or Combustion Products:	Not established.
Risk of Dust Explosion:	Not applicable.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Make sure spill area is well ventilated. Use adequate personal protective equipment.
Methods for Cleaning Up:	Do not use cloths for clean-up. Flood spilled material with water to polymerize. Cured material can be scraped up and disposed of as non-hazardous waste.

7. HANDLING AND STORAGE

- Handling:** Avoid contact with skin, eyes, and clothing. Avoid breathing vapor or mist. Avoid contact with paper goods or fabric. Contact with these materials may cause rapid polymerization which can generate smoke and strong irritating vapors.
- Storage:** Store away from heat and direct sunlight to maximize shelf life. Store inside in a dry location. Keep container tightly closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**EXPOSURE LIMITS**

Exposure limits for those components with limits are stated below.

- Ethyl-2 Cyanoacrylate:** US OSHA PEL: None
USACGIH – TLV: 0.2 ppm TWA
- Poly Methyl Methacrylate:** US OSHA PEL: None
US ACGIH – TLV: None

PEL: Permissible Exposure Limit
STEL: Short Term Exposure Limit
TLV: Threshold Limit Value
TWA: Time Weighted Average

US ACGIH: United States American Conference of Governmental Industrial Hygienists
US OSHA: United States Occupational Safety and Health Administration

ENGINEERING CONTROLS

Local exhaust ventilation is recommended to maintain vapor level below TLV.

PERSONAL PROTECTIVE EQUIPMENT

- Respiratory Protection:** Not applicable with good local exhaust. Use NIOSH approved respirator if there is a potential to exceed exposure limits.
- Hand Protection:** Polyethylene or non reactive gloves. Do not use cotton, PVC, or wool.
- Eye Protection:** Safety glasses or goggles with side shields.
- Skin and Body Protection:** Wear chemical resistant clothing when potential for skin contact exists.
- Other:** Eyewash and safety shower should be available for use in the immediate work area. Wash hands after using and before eating, drinking, smoking or using the lavatory.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance:** Black liquid.
- Odor:** Sharp, irritating.
- pH:** Not applicable.
- Vapor Pressure:** Less than 0.2mm Hg @25°C
- Boiling Point/Range:** Greater than 300°F
- Melting Point/Range:** Not applicable.
- Water Solubility:** Negligible, Polymerized by water.

Specific Gravity: 1.06 at 20° C
% Volatile (SCQAMD Method 316B): less than 20 grams per liter, 2% (estimated)
Evaporation Rate: Not applicable.
Partition Coefficient (n-octanol/water): Not established.

10. STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.
Hazardous Polymerization: Rapid exothermic polymerization will occur in the presence of water, amines, alkalis and alcohols.
Mechanical Sensitivity (shock): Not applicable.
Conditions to Avoid: Polymerized by contact with water, alcohols, amines, and alkalis.
Hazardous Decomposition and/or Combustion Products: Not established.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Oral LD50: Acute oral LD50 >5000mg/kg (rat) (estimated).
Inhalation LC50: Not established.
Dermal LC50: Acute dermal LD50 > 2000 mg/kg (rabbit) (estimated).
Eye Irritation: Not established.
Skin Irritation: Not established.

CHRONIC TOXICITY

Carcinogenic Effects: No data available on the product itself.
Mutagenic Effects: No data available on the product itself.
Reproductive Toxicity: No data available on the product itself.
Sensitizing Effects: No data available on the product itself.
Synergistic Materials: No data available on the product itself.

12. ECOLOGICAL INFORMATION

Information given is based on data on the components and the toxicology of similar products.

Aquatic Toxicity: No data available on the product itself.

ENVIRONMENTAL FATE

Mobility: No data available on the product itself.
Bioaccumulation: No data available on the product itself.
Persistence / Degradability: No data available on the product itself.
Distribution to Environmental Compartments: No data available on the product itself.

13. DISPOSAL CONSIDERATIONS

Disclaimer: Information in this section pertains to the product as shipped in its intended composition as described in Section 2 of this MSDS. Contamination or processing may change waste characteristics and requirements. Regulations may also apply to empty containers, liners or rinsate. State/provincial and local regulations may be different from federal regulations.

RCRA Classification (40 CFR 261): Dispose of in accordance with all local, state, and federal regulatory requirements.

14. TRANSPORTATION INFORMATION

CFR:

Proper shipping name: Combustible liquid, n.o.s. (more than 450 liters)
Hazard class or division: Combustible liquid (more than 450 liters)
Packing Group: III
Identification number: NA 1993 (More than 450 liters)
Exceptions: Unrestricted under 450 liters
Marine pollutant: No

15. REGULATORY INFORMATION

Hazard Classification

United States – OSHA (29 CFR 1910.1200): This product is considered hazardous under OSHA.

Canada – WHMIS Classification (CPR, SOR/88-66): B.3, D.2.B

International Inventories

All components of this product are listed on or exempt from the following inventories:

- (yes) - Domestic Substances List (DSL)
- (yes) - United States Toxic Substances Control Act (TSCA) Inventory

U.S. Federal Regulations

Clean Air Act amendments of 1990 (CAA, Section 11240: CFR 82): Contains no hazardous air pollutants.

Clean Water Act (CWA, 40 CFR 116): Contains no priority pollutants.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, 40 CFR 302): None.

Superfund Amendments and Reauthorization Act, Title III (SARA):

SARA Section 302 (40 CFR 355) Extremely Hazardous Substances: None.

SARA Section 311/312 (40 CFR 370) Hazard Category: Immediate health hazard, Delayed health hazard, Fire, Reactive

SARA Section 313 (40 CFR 372) Toxics Release Inventory: None.

U.S. State Regulations

California Proposition 65: None.

16. OTHER INFORMATION

HMIS Rating

HMIS Index: *- chronic, 0 – Minimal, 1 – slight, 2- moderate, 3 – serious, 4 –severe

Health: 2

Flammability: 2

Physical Hazard: 1

Additional Contacts:

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