

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Quantum® 147	Product Type: Cyanoacrylate Adhesive
Company : Hernon Manufacturing, Inc. 121 Tech Drive Sanford, FL 32771	Contact Information: Telephone: 407-322-4000 Emergency Telephone: 800-255-3924 Web Site: www.hernon.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Physical state: Liquid
Color: Black
Odor: Sharp, irritating

HMIS:
HEALTH: 2
FLAMMABILITY: 2
PHYSICAL HAZARD: 1
Personal Protection: See Section 8

WARNING: BONDS SKIN IN SECONDS.
MAY CAUSE EYE AND RESPIRATORY IRRITATION.

Primary Routes of Entry: Skin, inhalation, eyes

Signs and Symptoms of Exposure:

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

Skin Contact: Bonds 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 on solidification. In rare circumstances a large drop will burn the skin. Cured adhesive does not present a health even if bonded to the skin.

Eye Contact: Irritating to eyes. Causes excessive tearing. Eyelids may bond.

Ingestion: Not expected to be harmful by ingestion. Rapidly polymerizes (solidifies) and bonds in mouth. It is almost impossible to swallow.

Existing Conditions Aggravated by Exposure: Eye, skin, and respiratory disorders.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Ingredients</u>	<u>%</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>	<u>OTHER</u>
Ethyl Cyanoacrylate	75-80	0.2 ppm TWA	None	None
Elastomer	10-15	None	None	None
Silica, fumed, treated	1-3	3mg/m ³ TWA Respirable particles	None	None
Phthalic Anhydride	0.1-1	1 ppm TWA 6.1 mg/m ³	2 ppm TWA 12 mg/m ³	None

4. FIRST AID MEASURES

Ingestion:	Ensure breathing passages are not obstructed. The product will polymerize rapidly and bond to the mouth making it almost impossible to swallow. Saliva will separate any solidified product in several hours. Prevent the patient from swallowing any separated mass.
Inhalation:	Remove to fresh air. If symptoms persist, obtain medical attention.
Skin Contact:	Do not pull bonded skin apart. Soak in warm soapy water. Gently peel apart using a blunt instrument. If skin is burned due to the rapid generation of heat by a large drop, seek medical attention. If lips are bonded, apply warm water to the lips and encourage wetting and pressure from saliva in mouth. Peel or roll lips apart. Do not pull lips apart with direct opposing force.
Eye Contact:	Immediately flush with plenty of water for at least 15 minutes. Get medical attention. If eyelids are bonded closed, release eyelashes with warm water by covering with a wet pad. Do not force eye open. Cyanoacrylate will bond to eye protein and will cause a lachrymatory effect which will help to debond the adhesive. Keep eye covered until debonding is complete, usually within 1-3 days. Medical attention should be sought in case solid particles of polymerized cyanoacrylate trapped behind the eyelid caused abrasive damage.
To Physician:	Surgery is not necessary to separate accidentally bonded tissues. Experience has shown that bonded tissues are best treated by passive, non-surgical first aid. If rapid curing has caused thermal burns they should be treated symptomatically after adhesive is removed.

5. FIRE FIGHTING MEASURES

Flash Point (TCC):	150-200°F
Recommended Extinguishing Agents:	Water spray (fog), foam, dry chemical or carbon dioxide.
Special Firefighting Procedures:	Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA).
Hazardous Combustion Products:	Trace amounts of toxic fumes may be released on incineration and the use of breathing apparatus is recommended.
Unusual Fire or Explosion Hazards:	None
Flammable/Explosive Limits – lower %:	Not applicable
Flammable/Explosive Limits – upper %:	Not applicable

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Wear proper protective equipment
Measures for Environmental Protection:	Do not allow entry into drains or surface waters
Clean-up Measures:	Do not use cloths for mopping up. Flood with water to complete polymerization and scrape off the floor. Cured material can be disposed of as non-hazardous waste.

7. HANDLING AND STORAGE

Handling:	Avoid contact with eyes, skin and clothing. Avoid breathing vapor and mist. Wash thoroughly after handling. Avoid contact with fabric or paper goods. Contact with these materials may cause rapid polymerization which can generate smoke and strong irritating vapors, and cause thermal burns.
Storage:	Keep refrigerated

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Eye/Face Protection:	Chemical splash goggles or safety glasses with side shields.
Skin Protection:	Use nitrile gloves and aprons as necessary to prevent contact. Do not use PVC, nylon or cotton.
Respiratory Protection:	Use NIOSH approved respirator if there is a potential to exceed exposure limits
Engineering Controls:	Positive down-draft exhaust ventilation should be provided to maintain vapor concentrations below TLV.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Color:	Black
Odor:	Pungent
Vapor Pressure:	Less than 0.2 mm
Vapor Density:	Approximately 3
Solubility in Water:	Polymerized by water
Specific Gravity:	1.07
Boiling Point:	More than 300°F
Volatile Organic Compound Content	< 20g/L (California SCAQMD Method 316B) (estimated)
Evaporation Rate (Ether = 1)	Not available
pH:	Does not apply

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.
Hazardous Decomposition Products:	None
Incompatibility:	Polymerized by contact with water, alcohols, amines, or alkalies.

11. TOXICOLOGICAL INFORMATION

Toxicity: Estimated oral LD50 > 5,000 mg/kg. Estimated dermal LD50 > 2,000 mg/kg

Ingredients:	Literature Referenced Target Organ and Other Health Effects	Carcinogen Status		
		NTP	IARC	OSHA
Ethyl Cyanoacrylate	ALG IRR RES	NO	NO	NO
Elastomer	No data	NO	NO	NO
Silica, amorphous treated	NTO	NO	NO	NO
Phthalic Anhydride	No data	NO	NO	NO

Abbreviations:

ALG Allergen **IRR** Irritant **RES** Respiratory **NTO** No Target Organs

12. ECOLOGICAL INFORMATION

Ecological Information: Not available

13. DISPOSAL CONSIDERATIONS

Recommended methods of disposal: Dispose of according to Federal, State and Local regulations.

EPA Hazardous Waste Number: Not an RCRA hazardous waste

14. TRANSPORTATION INFORMATION

U.S. Dept. of Transportation Ground (49 CFR):

Proper Shipping Name: Unrestricted
Hazard Class or Division: None
Identification Number: None
Packing group: None

International Air Transportation (ICAO/IATA):

Proper Shipping Name: Unrestricted
Hazard Class or Division: None
Identification Number: None
Packing group: None

WaterTransportation (IMO/IMDG):

Proper Shipping Name: Unrestricted
Hazard Class or Division: None
Identification Number: None
Packing group: None
Marine pollutant: None

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory

CERCLA/SARA 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372): Phthalic anhydride

16. OTHER INFORMATION

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Title: Director - Quality & Development

DISCLAIMER: Some of the information presented is from sources other than direct test data on the product itself. The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable. This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200).