

Section 1 Identification

Product identifiers

Product names: F-Bond Rotary MEDIUM

Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Cyanoacrylate adhesive

Details of the supplier of the safety data sheet

Freeman Manufacturing and Supply Company

1101 Moore Road, Avon, OH 44011

Phone (440) 934-1902

FAX (440) 934-7200

Emergency telephone number

CHEMTREC 24 hour: (800) 424-9300

HMIS	
H	1
F	2
R	1

Section 2 Hazards Identification

GHS Classification in accordance with 29 CFR 1910.1200 (OSHA HCS)

Flammable Liquid, Category 4

Eye Irritation, Category 2A

Skin Irritation, Category 2

Specific Target Organ Toxicity, Single Exposure, Category 3 (Respiratory)

GHS Label elements, including precautionary statements



Signal word

Warning

Hazard statements

Combustible liquid

Causes serious eye irritation.

Causes skin irritation.

May cause respiratory irritation.

Precautionary statements

Avoid breathing dust/fume/gas/mist/vapors/spray

Use only outdoors or in a well-ventilated area.

Wear protective gloves / eye protection / face protection.

Wash thoroughly after handling.

IF ON SKIN: Wash with plenty of water.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

Dispose of contents/container to local, regional, national, and international regulations.

Hazards not otherwise classified (HNOC) or not covered by GHS

Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.

Section 3 Composition/Information on Ingredients

Hazardous Components	CAS Number	Percent (%)
Ethyl-2-cyanoacrylate	7085-85-0	80-100

Section 4 First Aid Measures

- General:** If you feel unwell, seek medical attention.
- Inhalation:** Overexposure may be irritating to the respiratory system. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical attention.
- Skin Contact:** Do not pull bonded skin apart. Gently wash with plenty of soap and water. If skin irritation or rash occurs: Get medical attention. Do not remove clothing if it sticks to skin. Contact through clothing (cotton) can cause immediate polymerization, exothermic reaction and burning. Removal of clothing can remove bonded skin. Submerge with water and soak affected area. Wear a plastic apron for added protection. If lips are accidentally bonded, apply warm soapy water and peel or roll lips apart. Do not try to pull apart! Burn: Should be treated normally after cyanoacrylate is released from the tissue.
- Eye Contact:** Immediately flush with warm water for at least 15 minutes, and seek medical attention. Cyanoacrylate will bond to eye proteins and cause weeping which will help debond the adhesive. Keep eye covered until debonding is complete, usually within 5 days.
- Ingestion:** Ingestion is not likely. Material will rapidly polymerize in the mouth prior to ingestion. Ensure breathing passages are not obstructed and seek medical attention.

Section 5 Fire-Fighting Measures

- Suitable extinguishing media**
Alcohol-resistant foams, dry powder, carbon dioxide, water spray or fog
- Unsuitable extinguishing media**
Water spray jet
- Hazardous combustion products**
Trace amounts of toxic fumes may be released on combustion. Hazardous fumes of carbon dioxide, carbon monoxide, and nitrogen oxides.
- Firefighting Instructions**
Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and suitable protective clothing.

Section 6 Accidental Release Measures

- Emergency Procedures**
Evacuate area immediately. Ensure adequate ventilation. Avoid contact with skin, eyes, and clothing. Avoid breathing vapors. Handle in accordance with good industrial hygiene and safety practices.
- Environment Precautions**
Avoid release to the environment. Prevent entry to sewers and public waters.
- Clean-up Methods**
Clear up spills immediately and dispose of waste safely. Flood with water to complete polymerization and scrape off the floor. Cured material can be disposed of as non-hazardous waste.

Section 7 Handling and Storage

Precautions for safe handling

Avoid breathing vapors. Use only outdoors or in a well ventilated area. Use personal protective equipment as required. Use of dispensing equipment is recommended to minimize the risk of skin or eye contact. Wash hands and other exposed areas after use.

Conditions for safe storage, including any incompatibilities

Comply with applicable local, state, and federal regulations. Keep away from direct sunlight. Keep container tightly closed when not in use. Store in a cool, dry place. Refrigerated storage is recommended for optimum shelf life.

Section 8 Exposure Controls/Personal Protection

Control parameters

Components with workplace control parameters

Component	CAS Number	Value type	Control parameter / Permissible concentration	Basis
Ethyl-2-cyanoacrylate	7085-85-0	TWA	0.2 ppm	ACGIH
		STEL	1 ppm	ACGIH

Exposure controls

Appropriate engineering controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below the recommended exposure limits. Do not use this product in an enclosed or poorly ventilated area. If ventilation alone cannot control exposure, respiratory protection should be used.

Personal protective equipment

Eye/face protection

Wear protective goggles or face shield.

Skin protection

Hand Protection

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Material of gloves: neoprene, nitrile rubber, butyl-rubber

Body Protection

Prevent skin contact when handling material.

Respiratory Protection

The need for respiratory protection is not anticipated under normal use conditions and with adequate ventilation. If elevated airborne concentrations above applicable workplace exposure levels are anticipated, a NIOSH-approved organic vapor respirator equipped with a dust/mist prefilter should be used.

Safety Stations

Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

General Hygienic Practices

Avoid breathing vapor or mist. Avoid contamination of food, beverages, or smoking materials. Wash thoroughly after handling, and before eating, drinking or smoking. Remove contaminated clothing promptly and clean thoroughly before reuse.

F-Bond Rotary MEDIUM

Section 9 Physical and Chemical Properties

Appearance	Colorless liquid
Odor	Characteristic, irritating, sharp
Odor threshold	No data available
pH	No data available
Melting point	-31 °C (-23.8 °F)
Boiling point	214 °C (417 °F)
Flash Point	82.5 °C (180.5 °F)
Evaporation rate	No data available
Upper/lower flammability	No data available
Vapor pressure	< 0.5 mmHg (@ 23.8 °C) (75 °F)
Vapor density	No data available
Specific gravity	1.043 g/cm ³ (8.67 lb/gal)
Water Solubility	Polymerizes in the presence of water.
Coefficient: n-octanol/ water	No data available
Auto-ignition temperature	480 °C (896 °F)
Viscosity	No data available
Volatile Organic Compounds	< 2% / < 20 g/l (California SCAQMD Method 316B)

Section 10 Stability and Reactivity

Stability:	Stable under normal conditions.
Reactivity:	No dangerous reactions known under normal conditions.
Hazardous Reactions:	Rapid polymerization will occur in the presence of moisture or other basic materials.
Hazardous Decomposition:	Toxic fumes. Carbon monoxide, carbon dioxide, nitrogen oxides.
Incompatible Materials:	Amines, water, alkalis, oxidizing agents, and alcohols.
Conditions to Avoid:	Direct sunlight, moisture, humidity, and basic materials.

Section 11 Toxicological Information

Acute oral toxicity (Ethyl-2-cyanoacrylate): >5000 mg/kg LD50 (Rat)
Acute dermal toxicity (Ethyl-2-cyanoacrylate): >2000 mg/kg LD50 (Rabbit)
Acute toxicity: In dry atmosphere with < 50% humidity, vapors may irritate the eyes and respiratory system. Prolonged exposure to high concentrations of vapors may lead to chronic effects in sensitive individuals.
Skin: Causes skin irritation.
Eye: Vapors irritating to eyes. Vapors may cause lachrymatory effect.
Respiratory: Vapors irritating to respiratory system.
Germ Cell Mutagenicity: Not classified as a germ cell mutagen.

Section 12 Ecological Information

Toxicity	Negligible toxicity
Persistence and degradability	Readily biodegradable in water
Bioaccumulative potential	Low potential for bioaccumulation
Mobility in soil	Not applicable. Test compounds will polymerize when in contact with moisture in soil.
Results of PBT & vPvB assessment	No data available

Section 13 Disposal Considerations

Dispose of waste in accordance with local and national regulations. Do not discharge in to drains or the environment.

Cured adhesive can be disposed of as non-hazardous waste in an authorized landfill or incinerated under controlled conditions.

Uncleaned Packages – After use, tubes, cartons, and bottles containing unused product should be disposed of as chemically contaminated waste in an authorized legal land fill site or incinerated.

Section 14 Transport Information

DOT

ID Number: NA 1993

Proper Shipping Name: Combustible liquid, n.o.s. (Cyanoacrylate esters)

Hazard Class: Combustible liquid

Packing Group: III

Exceptions: Non-bulk packaging containing less than 450 L is unregulated for domestic ground transport and may be shipped without restriction. [49 CFR 173.150(f)]



IMDG

ID Number: Not regulated

Proper Shipping Name: Not regulated

Hazard Class: Not regulated

Packing Group: Not regulated

Environmental Hazards: No

IATA

UN Number: UN 3334

Proper Shipping Name: Aviation regulated liquid, n.o.s. (Cyanoacrylate esters)

Hazard Class: 9

Packing Group: III

Exceptions: Inner packaging containing less than 500mL do not exhibit the properties of aviation regulated liquids and may be shipped without restriction.



Section 15 Regulatory Information

US Federal Regulations

SARA 311/312 Hazards: See Section 2 Hazard Statements

SARA 313 Toxic Chemical: None listed

US State Regulations

Listed on: the New Jersey – Right to Know Hazardous Substance List.

This product contains no ingredient under Proposition 65 that is classified as a significant risk.

Inventories

TSCA: All ingredients listed as active on the TSCA inventory

Section 16 Other Information

Disclaimer

The following supersedes Buyer's documents. SELLER MAKES NO REPRESENTATION OR WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. No statements herein are to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seller be liable for incidental, consequential or indirect damages for alleged negligence, breach of warranty, strict of liability arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Data and results are based on controlled lab work and must be confirmed by Buyer by testing for its intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended.