



MATERIAL SAFETY DATA SHEET

Mighty Bond Shoes

SECTION 1: IDENTIFICATION OF PRODUCT AND COMPANY

Material/Trade Name: **Mighty Bond Shoes**

(This MSDS covers products of the following sizes: 3g tubes)

Material Type: Cyanoacrylate Adhesive, Instant Adhesive, Super Glue, CA

Company: Republic Chemical Industries, Inc.

Address: 127 Progress Avenue, Carmelray Industrial Park 1, Canlubang, Calamba, Laguna 4037

Telephone: +63 2 488 9999

Fax: +63 49 549 3165

Website: www.repchem.com

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification:	Physical Hazards	
	Flammable Liquid:	Category 4
	Self-reactive substances and mixture:	Classification not possible
	Self-heating substances and mixture:	Classification not possible
	Health Hazards	
	Acute Toxicity (inhalation:vapour):	Classification not possible
	Acute Toxicity (inhalation:dust, mist):	Classification not possible
	Skin Corrosion/Irritation:	Category 2
	Serious Eye Damage/Eye Irritation:	Category 2B
	Respiratory/Skin sensitizer	Classification not possible (respiratory) Category 1 (skin)
	Germ cell mutagenicity	Category 1B
	Carcinogenicity	Category 2
	Toxic to reproduction	Category 1B
	STOT – Single Exposure:	Category 3 (respiratory tract irritation)
	STOT – Repeated Exposure:	Classification not possible
	Aspiration hazard	Classification not possible
	Environmental Hazards:	
	Aquatic Toxicity - Acute:	Classification not possible
	Aquatic Toxicity – Chronic:	Classification not possible
	Hazardous to the ozone layer	Classification not possible

Hazard Symbol/ Signal Word:



DANGER

Hazard Statement:

Combustible liquid

Causes skin irritation.

Causes eye irritation.

May cause allergic skin reaction.

May cause genetic defects.

Suspected of causing cancer.

Suspected of damaging fertility or the unborn child.

May cause respiratory irritation.

CYANOACRYLATE. DANGER. Bonds skin and eyes in seconds. Keep out of the reach of children.



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Precautionary Statement:

Preventive

Keep away from heat/sparks/open flames/hot surfaces.

No smoking.

Avoid breathing mist/vapours/spray.

Wash the hand/face by soap/water thoroughly after handling. Use only outdoors or in a well-ventilated area.

Contaminated work clothing should not be allowed out of the workplace. Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Wear protective poly-ethylene gloves/protective clothing/eye protection/face protection. If on skin: Wash with plenty of water/soap.

Response:

IF ON SKIN: Wash with plenty of soap and water.

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

IF INHALED: Removed victim to fresh air and keep at rest in a position comfortable for breathing.

If skin irritation occurs: Get medical advice/attention.

If eye irritation occurs: Get medical advice/attention.

IN CASE OF FIRE: Use carbon dioxide/dry chemical to extinguish. If exposed or concerned:

Get medical advice / attention.

Store locked up.

Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool.

Dispose of contents/container to accordance with local/regional/ national/international regulation.

SECTION 3: COMPOSITION/INFORMATION OF INGREDIENTS

Chemical Identity	Concentration (%)	CAS no.
Ethyl Cyanoacrylate	84-89	7085-85-0
Polymethylethacrylate	11-16	9011-14-7
Hydroquinone	0.1-0.2	123-31-9

SECTION 4: FIRST AID MEASURES

Eye:	If bonding to tissues occurs, wash with large amounts of warm water. Cover both eyes with sterile, dry bandages. The eye will open without further action. Do not pull surfaces apart with a direct opposing action. If burns occur, treat as thermal burns. Get medical attention.
Skin:	If bonding occurs, immerse the bonded surfaces in warm soapy water. Peel or roll the surfaces apart using a blunt edge, such as spatula or spoon handle. Do not pull surfaces apart with a direct opposing action. If burns occur, treat as thermal burns. Get medical attention if needed.
Inhalation:	If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.
Ingestion:	Wet lips with water. Peel or roll the surfaces apart using a blunt edge, such as a spatula or spoon handle. Do not pull surfaces apart with a direct opposing action. If a lump forms in the mouth, turn head to side. If burns occur, treat as thermal burns. Get medical attention.



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SECTION 5: FIRE FIGHTING MEASURES

Flash Point:	> 80°C
Extinguishing Media:	Water spray, foam, regular dry chemical or carbon dioxide.
Special Fire fighting Procedure:	Fire fighters should wear self-contained breathing apparatus.
Fire/Explosion Hazards:	Moderate fire hazard. The vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back. Vapor/air mixtures are explosive above flash point.
Fire Fighting:	Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Flood with fine water spray. Do not scatter spilled material with high-pressure water streams. Avoid inhalation of material or combustion by-product. Stay upwind and keep out of low areas.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Ventilate area of spill; do not use cloths for mopping up. Polymerize with water and scrape off floor. Dispose in accordance with pertinent national legislation.

SECTION 7: HANDLING AND STORAGE

Store and handle this product at room temperature; avoid strong light and heat sources; incompatible with amine, bases, and water. Avoid contact with skin and eyes. Avoid breathing vapor.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye/Face Protection:	Safety goggles/glasses suitable for use with chemicals.
Respiratory Protection:	Wear any chemical cartridge respirator with organic vapor cartridge(s).
Skin Protection:	Nitrile/polyethylene gloves, coveralls, avoid cotton products.
Ventilation:	Good general or local exhaust ventilation is required for usage. Ensure compliance with applicable exposure limits.
Exposure Limit:	Ethyl cyanoacrylate: 0.2 ppm ACGIH TWA

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid	Oxidizing Properties:	None
Color:	Clear	Vapor Pressure:	1 Pa at 25°C
Odor:	Pungent odor	Vapor Density:	(air = 1) >1
Odor Threshold:	Not available	Relative Density:	0.9 – 1.1
Boiling Point:	>190°C	Solubility in Water:	Insoluble, polymerized by water
Melting Point:	Not available	Solubility in Acetone:	Completely soluble
Flash Point:	>80°C	Partition Coefficient:	Not available
Evaporation Rate:	Not available	Auto-ignition Temp.:	Not available
Flammability:	Category 4	Decomposition Temp.:	Not available
Explosive Properties:	None	Viscosity:	210 – 350 cps

SECTION 10: STABILITY AND REACTIVITY

Stability	Stable at normal temperatures and pressure.
Hazard Polymerization	May polymerize. Avoid contact with water or incompatible materials.
Incompatibility	Polymerized by contact with amines, bases, combustible materials, peroxides
Hazardous Decomposition	



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Products (non-thermal)

Conditions to avoid

Thermal decomposition products: various organic fragments

Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat. Keep out of water supplies and sewers.

SECTION 11: TOXICOLOGICAL INFORMATION

ETHYL CYANOACRYLATE:

Toxicity Data: LD50 >5ml/kg oral-rat

Local Effects: Irritant: skin, eye

Acute Toxicity Level: Toxic: dermal absorption, ingestion

Medical Conditions Aggravated by Exposure: eye disorders, respiratory disorders, skin disorders and allergies.

Health Effects:

Inhalation:

Acute Exposure::

ETHYL CYANOACRYLATE: The maximum time for which no deaths were reported in rats exposed to saturated vapors was 8 hours. High concentrations of acrylic monomers may cause marked irritation, salivation, and pulmonary edema. Cyanoacrylate vapors may cause pneumonitis or other pulmonary complications including chemical bronchitis. Sensitization reactions, including asthma, have been reported in previously exposed persons.

Chronic Exposure:

ETHYL CYANOACRYLATE: Exposed workers have reported upper respiratory symptoms such as stuffy nose and irritated or sore throats.

Skin Contact:

Acute Exposure:

ETHYL CYANOACRYLATE: Sensitization reactions, both dermatitis and asthmatic, may occur in previously exposed persons. Contact with ethyl cyanoacrylate has caused bonding of the skin. Some liquid cyanoacrylates may cause thermal burns.

Chronic Exposure:

ETHYL CYANOACRYLATE: Some acrylic monomers may cause severe tissue damage.

Eye Contact:

Acute Exposure:

ETHYL CYANOACRYLATE: Irritation was rated 8 out of 10 in rabbit eyes. Contact with ethyl cyanoacrylate has caused bonding of the eye. Some acrylates and cyanoacrylates may cause irritation, lacrimation, double vision, chemosis, corneal abrasion, and severe tissue damage. Some acrylic monomers may cause conjunctival congestion.

Chronic Exposure:

ETHYL CYANOACRYLATE: Repeated or prolonged contact with irritants may result in conjunctivitis.

Ingestion:

Acute Exposure:

ETHYL CYANOACRYLATE: Contact may cause bonding of the mouth and lips. Some acrylic monomers may cause collapse, severe respiratory difficulties, and central nervous system stimulation.

Chronic Exposure:

ETHYL CYANOACRYLATE: No data available.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

Must not be disposed together with household garbage.



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Do not discharge into drains or watercourses.

Polymerize adhesive by adding slowly to water. Hardened product can be disposed of in landfill sites by licensed contractors. Add water to contaminated packaging and then dispose of according to local regulations.

SECTION 14: TRANSPORTATION INFORMATION

IATA-DGR UN 3334, Aviation Regulated Liquid, n.o.s. (Cyanoacrylate Ester), Class 9

IMDG No classification assigned

SECTION 15: REGULATORY INFORMATION

Chemical Inventory: All ingredients of this product are listed from the following inventories: TSCA (USA), EINECS (EU), DSL (CANADA, ENCS (JAPAN), AICS (AUSTRALIA), PICCS(PHILIPPINES) and IECSC(CHINA)

SECTION 16: OTHER INFORMATION

The information contained in this MSDS is based on our present knowledge. It was obtained from a variety of sources and is believed to be accurate and current at the stated version date. This data is provided without warranty for the use of this information, application or processing described in this MSDS. Users should note the possibility of hazards occurring due to improper use of the product.

Department issuing MSDS: *Research and Development Department*
Contact: *Marketing Department*

ABBREVIATIONS AND ACRONYMS:

PICCS – PHILIPPINE INVENTORY OF CHEMICALS AND CHEMICAL SUBSTANCES
 EINECS – EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES
 KECI – KOREAN EXISTING CHEMICALS LIST
 TSCA – TOXIC SUBSTANCES CONTROL ACT
 DSL – DOMESTIC SUBSTANCES LIST
 ENCS – JAPANESE EXISTING AND NEW CHEMICALS SUBSTANCES