

SAFETY DATA SHEET

Version: 01
Date of Issue: 23/02/2021
Date of First Issue: 23/02/2021


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ACCORDING TO: Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals (Safe Work Australia, 2020) & GHS 7

SECTION 1: IDENTIFICATION

Product identifier used on the label	M-Bond 200 Adhesive
Other means of identification	None
Recommended use of the chemical and restrictions on use	
Recommended use	Adhesives
Restrictions on use	Anything other than the above.
Supplier/Manufacturer name, address and telephone number	
Supplier/Manufacturer	VISHAY MEASUREMENTS GROUP, INC.
Address	Post Office Box 27777 Raleigh, NC 27611 USA
Telephone	+1 919-365-3800
Fax	+1 919-365-3945
E-Mail (competent person)	mm.us@vpgsensors.com
Importer/Distributor name, address and telephone number	To be added by Australian importer/distributor
Name	
Address	
Telephone	
Emergency telephone number	61-290372994 (for spills and releases) CHEMTREC (24 hours)

SECTION 2: HAZARD(S) IDENTIFICATION

Classification of the substance or mixture	
In accordance with the Safe Work Australia model Work Health and Safety Regulations (2020) & GHS 7	Flammable Liquid, Category 4 Skin Corrosion/Irritation, Category 2 Eye Damage/Irritation - Category 2 Specific target organ toxicity — single exposure, Category 3 (Respiratory tract)
Label elements	
Hazard Symbol	 Exclamation mark
Signal Word(s)	Warning
Hazard Statement(s)	H227: Combustible liquid. H315: Causes skin irritation. H319: Causes serious eye irritation. H335: May cause respiratory irritation.
Precautionary Statement(s)	P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P261: Avoid breathing vapours. P280: Wear protective gloves/protective clothing/eye protection/face protection.

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P264: Wash hands and exposed skin thoroughly after handling.
P337+P313: If eye irritation persists: Get medical advice/attention.
P312: Call a POISON CENTER/doctor if you feel unwell.

Other Hazards

None assigned

Other Hazards that do not Result in Classification

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

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances Not applicable

Mixtures Substances in preparations / mixtures

Chemical identity of the substance	%W/W	CAS No.	EC No.	Hazard classification
Ethyl 2-cyanoacrylate Synonym(s): 2-Propenoic acid, 2-cyano-, ethyl ester	>80	7085-85-0	230-391-5	Flammable Liquids - Category 4 Skin Irritation - Category 2 Eye Irritation - Category 2 Specific target organ toxicity — single exposure, Category 3 (Respiratory tract), SCL: C ≥ 10%
2-Propenoic acid, 2-methyl-, methyl ester, homopolymer* Synonym(s): Polymethylmethacrylate	10 - 20	9011-14-7	618-466-4	Not classified

*See Section: 15

SECTION 4: FIRST AID MEASURES



Description of first aid measures

First aid facilities

Self-protection of the first aider

Inhalation

Skin Contact

Eye Contact

Ingestion

Most important symptoms and effects, both acute and delayed

Indication of immediate medical attention and special treatment needed, if necessary

Notes to a physician:

IF ON SKIN:

Eyewash facilities should be stationed close to workplace where possible.

Avoid breathing vapours. Wear suitable protective clothing. Wear suitable respiratory protective equipment if exposure to high levels of material are likely. Avoid contact with skin and eyes.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

IF ON SKIN: Wash with plenty of water. Take off contaminated clothing. If skin irritation occurs, get medical advice/attention. Heat of Polymerization: Molten material can cause severe burns. Do NOT try to peel molten polymer from the skin. Cool rapidly with 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.

IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Get medical advice/attention if you feel unwell.

Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.

Treat symptomatically.

Remove excess adhesive. Soak in warm, soapy water or in a warm 1% solution of sodium bicarbonate. The adhesive will come loose from the skin in several

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IF SWALLOWED:

hours. Dried adhesive does not present a health hazard even when bonded to the skin. If in eyes, wash thoroughly with warm water and apply a gauze patch. The eye will open without further action, typically in 1 - 4 days. There will be no residual damage. Do not try to open the eyes by manipulation.

The product will polymerise immediately in the mouth making it almost impossible to swallow. In the unlikely event of adhesive entering the mouth it will solidify on contact with the moisture in the mouth bonding directly on the surfaces in the mouth. Salvia will gradually debond the adhesive over a period of hours. Do not try to pull the polymerised adhesive from the mouth. Keep checking the mouth to ensure that the person doesn't swallow it when it detaches.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

As appropriate for surrounding fire. Extinguish with carbon dioxide, dry chemical, foam or waterspray.

Unsuitable extinguishing Media

Do not use water jet. Direct water jet may spread the fire.

Special hazards arising from the chemical

Combustion or thermal decomposition will evolve toxic and irritant vapours. Carbon monoxide, Carbon dioxide, cyanide and Oxides of nitrogen. Vapours may ignite.

Special protective equipment and precautions for fire fighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Avoid run off to waterways and sewers.

Hazchem Code

ZZ

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Avoid breathing vapours. Avoid contact with skin and eyes. In case of inadequate ventilation wear respiratory protection. Use personal protective equipment as required. See Section: 8.

Environmental precautions

Avoid release to the environment. Do not allow to enter drains, sewers or watercourses.

Methods and material for containment and cleaning up

Ensure suitable personal protection during removal of spillages. Do not use cloths for mopping up. Flood with water to complete polymerisation and scrape off the floor. Cured material can be disposed of as non-hazardous waste.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Ensure operatives are trained to minimise exposures. Ensure adequate ventilation. Avoid breathing vapours. Avoid contact with skin and eyes. In case of insufficient ventilation, wear suitable respiratory equipment. Use personal protective equipment as required. See Section: 8. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Protect from moisture.

Conditions for safe storage, including any incompatibilities

Store in a cool/low-temperature, well-ventilated (dry) place. Keep container closed.

Storage temperature

Ambient. < 24°C .

Storage life

Stable at ambient temperatures.

Incompatible materials

Keep away from: Water, Alcohols, Acids, Alkalis, Peroxides.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Occupational Exposure Limits

No national occupational exposure limits assigned.

Substance	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m ³)	STEL (ppm)	STEL (mg/m ³)	Note	Source
Ethyl cyanoacrylate	7085-85-0	0.2	-	-	-	-	ACGIH




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Source:
ACGIH (USA): American Conference of Governmental Industrial Hygienists - Threshold limit values (TLV) (2019)

Biological exposure indicies	Not established
Appropriate engineering controls	Ensure adequate ventilation. Atmospheric levels should be controlled in compliance with the occupational exposure limit. A washing facility/water for eye and skin cleaning purposes should be present.
Individual protection measures, such as personal protective equipment (PPE)	General hygiene measures for the handling of chemicals are applicable. Keep good industrial hygiene. Avoid contact with skin and eyes. Avoid breathing vapours. Wash hands before breaks and after work. Keep work clothes separately. Do not eat, drink or smoke at the work place. IF exposed: Flush with fresh water if contact with skin or eyes.
Eye/face protection 	Wear protective eye glasses for protection against liquid splashes. Wear eye protection with side protection. (Recommended: EN166).
Skin protection 	Hand protection: Wear impervious gloves. Protective index 6, corresponding > 480 minutes of permeation time. Gloves should be changed regularly to avoid permeation problems. (Recommended: EN374) Breakthrough time of the glove material: refer to the information provided by the gloves' producer. Recommended: PVC / Nitrile rubber.
Respiratory protection 	Body protection: For large quantities - Wear apron or other light protective clothing. Recommended: Polyethylene.
Thermal hazards	In case of inadequate ventilation wear respiratory protection. Open system(s): Wear suitable respiratory protective equipment.
	Not applicable.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties	Physico-chemical properties of substance: Ethyl 2-cyanoacrylate.
Physical state	Liquid
Colour	Clear, colourless
Odour	Pungent Odour
Melting point and freezing point	-31°C (EU Method A.1)
Boiling point or initial boiling point and boiling range	214°C (EU Method A.2)
Flammability	Not applicable - Liquid
Lower and upper explosion limit or lower and upper flammability limit	Not available
Flash point	82.5°C [Closed cup] (EU Method A.9)
Auto-ignition temperature	480°C (EU Method A.15)
Decomposition temperature	Not established.
pH	Not established.
Kinematic viscosity	Not established.
Solubility	98% (Water)
Partition coefficient n-octanol/water (log value)	24 µg/L In Water (EU Method A.6)
Vapour pressure	<21 Pa @ 20°C

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Density and Relative density	1.043 (EU Method A.3)
Relative vapour density	>1 (Air = 1)
Particle characteristics	Not applicable (Liquid)

Additional parameters

Evaporation rate	Not established.
Volatile Organic Compound Content	1000 g/L
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	May polymerise on exposure to moisture.
Conditions to avoid	Store at temperatures not exceeding (°C): 24°C. Protect from moisture.
Incompatible materials	Keep away from: Water, Alcohols, Acids, Alkalis, Peroxides.
Hazardous decomposition product(s)	May decompose in a fire giving off toxic fumes. Carbon monoxide, Carbon dioxide, cyanide and Oxides of nitrogen.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects (Substances in preparations / mixtures)	All test data taken from existing ECHA registrations for the substances mentioned.
Acute toxicity	
Ingestion	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: Estimated LD50 > 2000 mg/kg bw/day.
Inhalation	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: estimated LC50 > 20 mg/L.
Dermal	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: estimated LD50 > 2000 mg/kg bw/day.
Skin corrosion/irritation	Skin Corrosion/Irritation, Category 2; Causes skin irritation.
Ethyl 2-cyanoacrylate	Skin Corrosion/Irritation, Category 2; Causes skin irritation. Irritating to skin. (rabbit) (OECD 404)
Serious eye damage/irritation	Eye Irritation, Category 2: Causes serious eye irritation.
Ethyl 2-cyanoacrylate	Eye Irritation, Category 2 Irritating to eyes. (rabbit) (OECD 405)
Respiratory or skin sensitization	Based upon the available data, the classification criteria are not met.
Germ cell mutagenicity	Based upon the available data, the classification criteria are not met.
Carcinogenicity	Based upon the available data, the classification criteria are not met.
Reproductive toxicity	Based upon the available data, the classification criteria are not met.
STOT - single exposure	Specific target organ toxicity — single exposure, Category 3; May cause respiratory irritation.
Ethyl 2-cyanoacrylate	Specific target organ toxicity — single exposure, Category 3; May cause respiratory irritation. EU Harmonised Classification.
STOT - repeated exposure	Based upon the available data, the classification criteria are not met.
Aspiration hazard	Based upon the available data, the classification criteria are not met.
Information on likely routes of exposure	
Inhalation	Possible route of exposure.
Ingestion	Unlikely route of exposure.
Skin Contact	Possible route of exposure.
Eye Contact	Unlikely route of exposure.

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Early onset symptoms related to exposure	Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.
Delayed health effects from exposure	None Known
Exposure levels and health effects	See section 8
Interactive effects	None Known
Other information	None Known
NTP Report on Carcinogens	No components listed.
IARC Monographs	2-Propenoic acid, 2-methyl-, methyl ester, homopolymer: Group 3

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	Based upon the available data, the classification criteria are not met. Estimated Mixture LC50 >100 mg/L (Fish)
Persistence and degradability	No data for the mixture as a whole. Ethyl 2-cyanoacrylate No data: Technically not possible. EU ECHA registration dossier
Bioaccumulative potential	No data for the mixture as a whole. Ethyl 2-cyanoacrylate No data: Technically not possible. EU ECHA registration dossier
Mobility in soil	No data for the mixture as a whole. Ethyl 2-cyanoacrylate No data: Technically not possible. EU ECHA registration dossier
Other adverse effects	None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Safe handling and disposal methods	Dispose of contents in accordance with local, state or national legislation. Dispose of this material and its container as hazardous waste. Dispose of wastes in an approved waste disposal facility.
Disposal of contaminated packaging	Containers of this material may be hazardous when empty since they retain product residue. Handle contaminated packages in the same way as the substance itself.
Environmental regulations	Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

	ADG	IMDG	IATA/ICAO
UN number	N/A	UN 3334	UN 3334
Proper Shipping Name	Not subject to ADG.	AVIATION REGULATED LIQUID, N.O.S. (Cyanoacrylate ester)	AVIATION REGULATED LIQUID, N.O.S. (Cyanoacrylate ester)
Transport hazard class(es)	Not classified	9	9
Packing group	Not classified	III	III
Environmental hazards	Not classified	Not classified as a Marine Pollutant.	Not classified
Special precautions for user	See Section: 2		
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.		
Hazchem code	2Z		

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SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

International Regulations (for example)

Montreal Protocol/Stockholm Convention/ Rotterdam Convention/ Basel Convention / MARPOL All chemicals are not listed

National Regulations

Australian Inventory of Chemical Substances (AICS) All components are listed on AICS
NICNAS - Priority Existing Chemicals All chemicals are not listed
NICNAS - IMAP Framework 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer: Tier I: Human Health Assessment, Tier I: Environment Assessment)

NICNAS - High Volume Industrial Chemical List All chemicals are not listed
National Pollutant Inventory All chemicals are not listed
The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) Ethyl 2-cyanoacrylate - Schedule 5 (under 'CYANOACRYLATE ESTERS')

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: not applicable – V1.0

Version: 1.0

Revision Date: not applicable – V1.0

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References:

Safety Data Sheets for ingoing ingredients.

EU Data: Existing ECHA registration(s) for and Harmonised Classification(s) for Ethyl 2-cyanoacrylate (CAS No. 7085-85-0); EU classification and labelling inventory for 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CAS No. 9011-14-7).

The mixture is classified in accordance with Safe Work Australia model Work Health and Safety Regulations (2020) & GHS 7

LEGEND

ADG	Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
IATA	International Air Transport Association
IARC	International Agency for Research on Cancer
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
LTEL	Long term exposure limit
NICNAS	National Industrial Chemicals Notification and Assessment Scheme
NTP	National Toxicology Program
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SCL	Specific Concentration Limit
STEL	Short term exposure limit
TWA	Time Weighted Average

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

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