

SAFETY DATA SHEET

Revision: 2.0 Date: 28.10.2015

ACCORDING TO OSHA HCS (29 CFR 1910.1200)

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SECTION 1: IDENTIFICATION

1.1 Product identifier	
Product Name	M-Bond 200 Adhesive
Chemical Name	Mixture
CAS No.	Mixture
EINECS No.	Mixture
1.2 Relevant identified uses of the substance or mixture and uses advised against	
Identified Use(s)	Adhesives.
Uses Advised Against	None known.
1.3 Details of the supplier of the safety data sheet	
Company Identification	VISHAY MEASUREMENTS GROUP, INC. Post Office Box 27777 Raleigh, NC 27611 USA
Telephone	919-365-3800
Fax	919-365-3945
E-Mail (competent person)	mm.us@vishaypg.com
1.4 Emergency telephone number	1-800-424-9300 CHEMTREC

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture	
2.1.1 GHS Classification	Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335
2.2 Label elements	
Product Name	GHS Classification M-Bond 200 Adhesive
Hazard Pictogram(s)	
Signal Word(s)	Warning
Contains:	Ethyl 2-cyanoacrylate
Hazard Statement(s)	H315: Causes skin irritation. H319: Causes serious eye irritation. H335: May cause respiratory irritation.
Precautionary Statement(s)	P261: Avoid breathing vapours. P280: Wear protective gloves/protective clothing/eye protection/face protection. P302+P352: IF ON SKIN: Wash with plenty of water. P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313: IF exposed or concerned: Get medical advice/attention.
OSHA Defined Hazards	None.
2.3 Other hazards	Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances Not applicable.

3.2 Mixtures

GHS Classification

Chemical identity of the substance	%W/W	CAS No.	EC No.	Hazard classification
Ethyl 2-cyanoacrylate	80 – 100	7085-85-0	230-391-5	Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 (SCL: C ≥ 10%)
2-Propenoic acid, 2-methyl-, methyl ester, homopolymer	10 - 20	9011-14-7	618-466-4	Not classified

For full text of H/P Statements see section 16.

SECTION 4: FIRST AID MEASURES



4.1 Description of first aid measures

Inhalation

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.

Skin Contact

IF ON SKIN: Wash with plenty of water. Take off contaminated clothing and wash before reuse. 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.

Eye Contact

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.

Ingestion

Unlikely route of exposure. If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. Get medical advice/attention if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

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

4.3 Indication of any immediate medical attention and special treatment needed

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 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.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media

Extinguish with carbon dioxide, dry chemical, foam or waterspray.

Unsuitable extinguishing Media

Do not use water jet.

5.2 Special hazards arising from the substance or mixture

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

5.3 Advice 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.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

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|--|--|
| 6.1 Personal precautions, protective equipment and emergency procedures | Ensure adequate ventilation. Avoid breathing vapours. Avoid all contact. In case of inadequate ventilation wear respiratory protection. Use personal protective equipment as required. See Section: 8. |
| 6.2 Environmental precautions | Avoid release to the environment. Do not allow to enter drains, sewers or watercourses. |
| 6.3 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. |
| 6.4 Reference to other sections | See Section: 8, 13 |

SECTION 7: HANDLING AND STORAGE

- | | |
|--|--|
| 7.1 Precautions for safe handling | Ensure adequate ventilation. Avoid breathing vapours. Avoid all contact. In case of inadequate ventilation wear respiratory protection. 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. |
| 7.2 Conditions for safe storage, including any incompatibilities
Storage temperature
Storage life
Incompatible materials | Store in a cool/low-temperature, well-ventilated (dry) place. Keep container closed.
Ambient. < 24°C.
Stable under normal conditions.
Keep away from: Water, Alcohols, Acids, Alkalis, Peroxides. |
| 7.3 Specific end use(s) | Adhesives. |

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- | | |
|---|---|
| 8.1 Control parameters | |
| 8.1.1 Occupational Exposure Limits | No Occupational Exposure Limits assigned.
No OSHA permissible exposure limits (PELs).
No American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs). |
| 8.1.2 Biological limit value | Not established. |
| 8.2 Exposure controls | |
| 8.2.1 Appropriate engineering controls | Ensure adequate ventilation. Atmospheric levels should be controlled in compliance with the occupational exposure limit. |
| 8.2.2 Individual protection measures, such as personal protective equipment (PPE) | General hygiene measures for the handling of chemicals are applicable. Avoid all contact. Avoid breathing vapours. Wash hands before breaks and after work. Keep work clothes separately. Do not eat, drink or smoke at the work place. |
| Eye/face protection
 | Wear protective eye glasses for protection against liquid splashes. Wear eye protection with side protection. |
| Skin protection
 | Hand protection: Wear impervious gloves. Breakthrough time of the glove material: refer to the information provided by the gloves' producer.
Recommended: PVC / Nitrile rubber.

Body protection: For large quantities - Wear apron or other light protective clothing. Recommended: Polyethylene. |
| Respiratory protection
 | Use only in well-ventilated areas. In case of inadequate ventilation wear respiratory protection. For large quantities - Wear suitable respiratory protective equipment. |

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Thermal hazards

Heat of Polymerization: Molten material can cause severe burns. Do NOT try to peel molten polymer from the skin. Cool rapidly with water.

8.2.3 Environmental Exposure Controls

Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties	Physico-chemical properties of substance Ethyl 2-cyanoacrylate.
Appearance	Clear Liquid
Odour	Pungent Odour
Odour Threshold	Not available.
pH	Not established.
Melting Point/Freezing Point	-31°C (EU Method A.1)
Initial boiling point and boiling range	214°C (EU Method A.2)
Flash point	82.5°C [Closed cup] (EU Method A.9)
Evaporation Rate	Not established.
Flammability (solid, gas)	Not applicable - Liquid
Upper/lower flammability or explosive limits	Not available.
Vapour pressure	<21 Pa @ 20°C
Vapour density	>1 (Air = 1)
Relative density	1.043 EU Method A.3
Solubility(ies)	24 µg/L in Water (EU Method A.6)
Partition coefficient: n-octanol/water	0.776 (log Pow).
Auto-ignition temperature	480°C (EU Method A.15)
Decomposition Temperature	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not oxidising.
9.2 Other information	Volatile Organic Compound Content: 1000 g/l

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	Stable under normal conditions.
10.2 Chemical stability	Stable under normal conditions.
10.3 Possibility of hazardous reactions	May polymerise on exposure to moisture.
10.4 Conditions to avoid	Store at temperatures not exceeding (°C): 24°C. Protect from moisture.
10.5 Incompatible materials	Keep away from: Water, Alcohols, Acids, Alkalis, Peroxides.
10.6 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

11.1 Information on toxicological effects (Substances in preparations / mixtures)	
Acute toxicity	
Ingestion	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 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.
Skin Contact	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 2000 mg/kg bw/day.
Skin corrosion/irritation	Skin Irrit. 2: Causes skin irritation.
Serious eye damage/irritation	Eye Irrit. 2: Causes serious eye irritation.
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.

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Reproductive toxicity
STOT - single exposure
STOT - repeated exposure
Aspiration hazard

Based upon the available data, the classification criteria are not met.
STOT SE 3: May cause respiratory irritation.
Based upon the available data, the classification criteria are not met.
Based upon the available data, the classification criteria are not met.

11.2 Other information Likely Routes of Exposure

Inhalation
Ingestion

Yes
It is almost impossible to swallow cyanoacrylates. The adhesive solidifies and adheres in the mouth. Lips may become stuck together.
Yes

Skin Contact

Carcinogenicity Information

NTP Report on Carcinogens
IARC Monographs
Regulated by OSHA as a Carcinogen

None of the components are listed.
None of the components are listed.
None of the components are listed.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecotoxicity Based upon the available data, the classification criteria are not met.
Estimated Mixture LC50 >100 mg/l (Fish)

12.2 Persistence and degradability No data; Technically not possible.

12.3 Bioaccumulative potential The product has no potential for bioaccumulation.

12.4 Mobility in soil The product is predicted to have low mobility in soil (Insoluble in water).

12.5 Other adverse effects Not classified as PBT or vPvB.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods This material and its container must be disposed of as hazardous waste.
Dispose of wastes in an approved waste disposal facility. Dispose of contents in accordance with local, state or national legislation.

SECTION 14: TRANSPORT INFORMATION

Not classified as dangerous for transport. Except for Air transport

14.1 UN number IATA
UN 3334

14.2 UN proper shipping name Aviation regulated liquid, n.o.s. (Cyanoacrylate ester)

14.3 Transport hazard class(es) 9

14.4 Packing group III

14.5 Environmental hazards Not classified as a Marine Pollutant. / Environmentally hazardous substance

14.6 Special precautions for user See Section: 2

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

14.8 Additional Information Primary packs containing less than 500ml are unregulated by this mode of transport and may be shipped unrestricted.
Packaging instructions (passenger): 906
Packaging instructions (cargo): 906

SECTION 15: REGULATORY INFORMATION

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

15.1.1 U.S. Federal Regulations
TSCA Inventory Status All components are listed in the Toxic Substance Control Act Chemical Substance Inventory (TSCA).

15.1.2 US State Regulations None known.

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15.1.3 European regulations

Substance(s) of Very High Concern (SVHCs) None.
Authorisations and/or Restrictions On Use None.
Wassergefährdungsklasse (Germany) Water hazard class: Not classified

15.2 Chemical Safety Assessment

Not available.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

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References: Existing Safety Data Sheet (SDS) and Existing ECHA registration(s) for Ethyl 2-cyanoacrylate (CAS# 7085-85-0) and the Classification and Labelling Inventory for 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CAS# 9011-14-7).

GHS Classification of the substance or mixture	Classification Procedure
Skin Irrit. 2; H315	Threshold Calculation
Eye Irrit. 2; H319	Threshold Calculation
STOT SE 3; H335	Threshold Calculation

LEGEND

ACGIH: American Conference of Governmental Industrial Hygienists
IARC: International Agency for Research on Cancer
NTP: National Toxicology Program
OSHA: The Occupational Safety & Health Administration

PBT: Persistent, Bioaccumulative and Toxic
PELs: Permissible Exposure Limits
TLVs: Threshold limit values
vPvB: very Persistent and very Bioaccumulative

Hazard Statement(s)

H315: Causes skin irritation.
H319: Causes serious eye irritation.

H335: May cause respiratory irritation.
SCL: Specific Concentration Limit

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.

Disclaimers

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Annex to the extended Safety Data Sheet (eSDS)

No information available.