

# 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 OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

<b>1.1 Product identifier</b>	
Product Name	M-Bond 200 Catalyst C
Chemical Name	Mixture
CAS No.	Mixture
EINECS No.	Mixture
REACH Registration No.	None assigned.
<b>1.2 Relevant identified uses of the substance or mixture and uses advised against</b>	
Identified Use(s)	Adhesives.
Uses Advised Against	None known.
<b>1.3 Details of the supplier of the safety data sheet</b>	
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
<b>1.4 Emergency telephone number</b>	1-800-424-9300 CHEMTREC

## SECTION 2: HAZARDS IDENTIFICATION

<b>2.1 Classification of the substance or mixture</b>	
<b>2.1.1 GHS Classification</b>	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336
<b>2.2 Label elements</b>	
Product Name	GHS Classification M-Bond 200 Catalyst C
Hazard Pictogram(s)	 
Signal Word(s)	Danger
Contains:	Propan-2-ol
Hazard Statement(s)	H225: Highly flammable liquid and vapour. H319: Causes serious eye irritation. H336: May cause drowsiness or dizziness.
Precautionary Statement(s)	P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking. P261: Avoid breathing vapours. P280: Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313: If eye irritation persists: Get medical advice/attention. P308+P311: IF exposed or concerned: Call a POISON CENTER/doctor.
OSHA Defined Hazards	None.
<b>2.3 Other hazards</b>	None.

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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.	REACH Registration No.	Hazard classification
Propan-2-ol	98	67-63-0	200-661-7	None assigned	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336
n-Phenyldiethanolamine	2	120-07-0	204-368-5	None assigned	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT RE 2; H373

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

## SECTION 4: FIRST AID MEASURES



4.1 Description of first aid measures

Inhalation

Skin Contact

Eye Contact

Ingestion

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 and wash before reuse. If skin irritation occurs, get medical advice/attention.

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 with water (only if the person is conscious). Do not induce vomiting. Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Causes serious eye irritation. May cause drowsiness or dizziness. May cause nausea/vomiting.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media

Unsuitable extinguishing Media

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

Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Highly flammable liquid and vapour. May decompose in a fire giving off toxic fumes. Carbon monoxide, Carbon dioxide. The vapour may be invisible, heavier than air and spread along ground. Prevent liquid entering sewers, basements and workpits; vapour may create explosive atmosphere.

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.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Stop leak if safe to do so. Highly flammable liquid and vapour. Eliminate all ignition sources if safe to do so. Avoid breathing vapours. Avoid contact with skin, eyes or clothing. Wear suitable respiratory protection. Use personal protective equipment as required. See Section: 8.

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- 6.2 **Environmental precautions** Wash contaminated clothing before reuse. The vapour is heavier than air; beware of pits and confined spaces.
- 6.3 **Methods and material for containment and cleaning up** Avoid release to the environment. Prevent liquid entering sewers, basements and workpits; vapour may create explosive atmosphere.
- 6.4 **Reference to other sections** Ensure suitable personal protection (including respiratory protection) during removal of spillages. Use non-sparking equipment when picking up flammable spill. Adsorb spillages onto sand, earth or any suitable adsorbent material. Do not adsorb onto sawdust or other combustible materials. Transfer to a lidded container for disposal or recovery. Ventilate the area and wash spill site after material pick-up is complete. Dispose of this material and its container as hazardous waste.
- See Section: 8, 13

### SECTION 7: HANDLING AND STORAGE

- 7.1 **Precautions for safe handling** Ensure adequate ventilation. Avoid breathing vapours. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. 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. Highly flammable liquid and vapour. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- 7.2 **Conditions for safe storage, including any incompatibilities** Ground/bond container and receiving equipment. Store in a well-ventilated place. Keep container tightly closed. Keep away from heat, sources of ignition and direct sunlight.
- Storage temperature Ambient. 5 - 25°C  
Storage life Stable under normal conditions.  
Incompatible materials Keep away from: Strong oxidising agents, Acids (Nitric acid and Sulphuric acid), Halogens and halogenated compounds.
- 7.3 **Specific end use(s)** Adhesives.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 **Control parameters**
- 8.1.1 **Occupational Exposure Limits**

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m <sup>3</sup> )	STEL (ppm)	STEL (mg/m <sup>3</sup> )	Note
Propan-2-ol	67-63-0	400	980	500*	1250*	NIOSH
		400	980	-	-	OSHA
		200	-	400	-	ACGIH

Note: OSHA PELs 1910.1000 TABLE Z-1 / NIOSH RELs / ACGIH TLVs

\*15 minutes average value

The other components listed in Section 3 do not have assigned occupational exposure limits.

#### 8.1.2 Biological limit value

SUBSTANCE	CAS No.	Determinant	Biological Exposure Indices	Sampling Time	Note
Propan-2-ol	67-63-0	Acetone in urine	40 mg/l	End of shift at end of workweek	B, Ns

Source: BEI: Biological Exposure Indices (ACGIH).

Notes (See Section 16 for full definition):

B: Background

Ns: Nonspecific

The other components listed in Section 3 do not have assigned Biological Exposure Indices.

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<b>8.2 Exposure controls</b>	
<b>8.2.1 Appropriate engineering controls</b>	Ensure adequate ventilation or use appropriate containment. Atmospheric levels should be controlled in compliance with the occupational exposure limit.
<b>8.2.2 Individual protection measures, such as personal protective equipment (PPE)</b>	General hygiene measures for the handling of chemicals are applicable. Avoid breathing vapours. Avoid contact with skin, eyes or clothing. Wash hands before breaks and after work. Keep work clothes separately. Wash contaminated clothing before reuse. 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	Wear impervious gloves. Nitrile rubber, Butyl rubber. Breakthrough time of the glove material: refer to the information provided by the gloves' producer. Unsuitable gloves materials: Natural rubber / PVC.
	
Respiratory protection	Use only in well-ventilated areas. In case of inadequate ventilation wear respiratory protection. For large quantities - Wear suitable respiratory protective equipment.
	
Thermal hazards	Not applicable.
<b>8.2.3 Environmental Exposure Controls</b>	Avoid release to the environment.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>9.1 Information on basic physical and chemical properties</b>	Physico-chemical properties of substance Propan-2-ol.
Appearance	Blue Coloured liquid.
Odour	Alcohol-like Odour
Odour Threshold	Not available.
pH	Not established.
Melting Point/Freezing Point	-88.5°C
Initial boiling point and boiling range	82.3°C (Mixture)
Flash point	11.7 °C
Evaporation Rate	2.83 (BuAc = 1)
Flammability (solid, gas)	Not applicable - Liquid
Upper/lower flammability or explosive limits	Not available.
Vapour pressure	6.02 kPa at 25°C
Vapour density	2.1 (Air = 1)
Relative density	0.78 (H2O = 1)
Solubility(ies)	98% (Water)
Partition coefficient: n-octanol/water	0.05 log Pow (25 °C)
Auto-ignition temperature	399 °C
Decomposition Temperature	Not available.
Viscosity	2.038 mPa s (dynamic) 25 °C
Explosive properties	Not available.
Oxidising properties	Not oxidising.
<b>9.2 Other information</b>	None.

## SECTION 10: STABILITY AND REACTIVITY

<b>10.1 Reactivity</b>	Stable under normal conditions.
<b>10.2 Chemical stability</b>	Stable under normal conditions.

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10.3	<b>Possibility of hazardous reactions</b>	Highly flammable liquid and vapour. The vapour may be invisible, heavier than air and spread along ground.
10.4	<b>Conditions to avoid</b>	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
10.5	<b>Incompatible materials</b>	Keep away from: Strong oxidising agents, Acids (Nitric acid and Sulphuric acid), Halogens and halogenated compounds.
10.6	<b>Hazardous decomposition product(s)</b>	May decompose in a fire giving off toxic fumes. Carbon monoxide, Carbon dioxide.

### 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**

Based upon the available data, the classification criteria are not met.

**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.

**Reproductive toxicity**

Based upon the available data, the classification criteria are not met.

**STOT - single exposure**

STOT SE 3: May cause drowsiness and dizziness.

**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.

#### 11.2 Other information

##### Likely Routes of Exposure

Inhalation

Yes

Ingestion

Accidental

Skin Contact

Yes

##### Carcinogenicity Information

NTP Report on Carcinogens

None of the components are listed.

IARC Monographs

None of the components are listed.

Regulated by OSHA as a Carcinogen

None of the components are listed.

### SECTION 12: ECOLOGICAL INFORMATION

12.1	<b>Ecotoxicity</b>	Based upon the available data, the classification criteria are not met. Estimated Mixture LC50 >100 mg/l (Fish)
12.2	<b>Persistence and degradability</b>	Readily biodegradable.
12.3	<b>Bioaccumulative potential</b>	The product has low potential for bioaccumulation.
12.4	<b>Mobility in soil</b>	The product is predicted to have high mobility in soil. Water Soluble.
12.5	<b>Other adverse effects</b>	Not classified as PBT or vPvB.

### SECTION 13: DISPOSAL CONSIDERATIONS

13.1	<b>Waste treatment methods</b>	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.
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## SECTION 14: TRANSPORT INFORMATION

	ADR/RID / IMDG / IATA
14.1 UN number	UN 1219
14.2 UN proper shipping name	ISOPROPANOL (ISOPROPYL ALCOHOL)
14.3 Transport hazard class(es)	3
14.4 Packing group	II
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	None.

## 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.
15.1.1 European regulations	
Substance(s) of Very High Concern (SVHCs)	None.
Authorisations and/or Restrictions On Use	None.
Wassergefährdungsklasse (Germany)	Water hazard class: 1
15.2 Chemical Safety Assessment	Not available.

## SECTION 16: OTHER INFORMATION

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

Version	2.0
Revision date	28.10.15

**References:** Existing Safety Data Sheet (SDS), Existing ECHA registration(s) for Propan-2-ol (CAS# 1330-20-7) and the Classification and Labelling Inventory for n-Phenyldiethanolamine (CAS# 120-07-0).

GHS Classification of the substance or mixture	Classification Procedure
Flam. Liq. 2; H225	Flash Point Test Result/ Boiling Point (°C) Test Result
Eye Irrit. 2; H319	Threshold Calculation
STOT SE 3; H336	Threshold Calculation

### LEGEND

LTEL: Long Term Exposure Limit  
STEL: Short Term Exposure Limit  
DNEL: Derived No Effect Level

PNEC: Predicted No Effect Concentration  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative

### Hazard Statement(s)

H225: Highly flammable liquid and vapour.  
H302: Harmful if swallowed.  
H315: Causes skin irritation.

H319: Causes serious eye irritation.  
H336: May cause drowsiness or dizziness.  
H372: Causes damage to organs through prolonged or repeated exposure.

H318: Causes serious eye damage.

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.