SAFETY DATA SHEET

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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 Catalyst C
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 2
Skin sensitisation – Category 1
Eye Damage/Irritation - Category 2A
Specific target organ toxicity — single exposure - Category 3 (Narcotic effects)
Specific target organ toxicity — single exposure - Category 2

Label elements

Hazard Symbol


Flame


Health hazard


Exclamation mark

Signal Word(s): DANGER

Hazard Statement(s):
H225: Highly flammable liquid and vapour.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.
H371: May cause damage to organs.

Precautionary Statement(s):
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P260: Do not breathe vapour.
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 person to fresh air and keep 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+P311: IF exposed or concerned: Call a POISON CENTER/doctor.

Other Hazards None assigned

Other Hazards that do not Result in Classification None Known

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
2-Propanol Synonym(s): Isopropanol; Isopropyl alcohol; Propan-2-ol	>97	67-63-0	200-661-7	Flammable Liquid - Category 2 Eye Damage/Irritation - Category 2A Specific target organ toxicity — single exposure - Category 3 (Narcotic effects)
n-Phenyldiethanolamine Synonym(s): Ethanol, 2,2'-(phenylimino)bis-; 2,2'-phenyliminodiethanol	<3	120-07-0	204-368-5	Eye Damage/Irritation - Category 1 Skin sensitisation – Category 1 Specific target organ toxicity — single exposure - Category 1 Hazardous to the aquatic environment, Chronic, Category 3

SECTION 4: FIRST AID MEASURES

Description of first aid measures

First aid facilities — Eyewash facilities should be stationed close to workplace where possible.

Self-protection of the first aider — Use personal protective equipment as required. Wear appropriate personal protective equipment, avoid direct contact. Ensure adequate ventilation Do not breathe vapour. Avoid contact with skin and eyes. Contaminated clothing should be laundered before reuse.

Inhalation — IF INHALED: Remove person to fresh air and keep 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. If skin irritation occurs, get medical advice/attention.

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 — If swallowed, rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. Obtain medical attention.

Most important symptoms and effects, both acute and delayed — Causes serious eye irritation. May cause an allergic skin reaction. May cause drowsiness or dizziness. May cause nausea/vomiting. May cause damage to organs.

Indication of immediate medical attention and special treatment needed, if necessary — Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media	
Suitable Extinguishing Media	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	Highly flammable liquid and vapour. Decomposes in a fire giving off toxic fumes: Carbon monoxide, Carbon dioxide, Nitrogen oxides. Prevent liquid entering sewers, basements and workpits; vapour may create explosive atmosphere. Vapours are heavier than air and may travel considerable distances to a source of ignition and flashback.
Special protective equipment and precautions for fire fighters	Fight fire with normal precautions from a reasonable distance. Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Keep containers cool by spraying with water if exposed to fire. Avoid release to the environment.
Hazchem Code	●2YE

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Caution - spillages may be slippery. Ensure adequate ventilation Stop leak if safe to do so. In case of leakage, eliminate all ignition sources. Do not breathe vapour. Avoid contact with skin, eyes or clothing. Wear suitable respiratory protection. Use personal protective equipment as required. See Section: 8. Wash contaminated clothing before reuse. The vapour is heavier than air; beware of pits and confined spaces.
Environmental precautions	Avoid release to the environment. Do not allow to enter drains, sewers or watercourses. Vapours are heavier than air and may travel considerable distances to a source of ignition and flashback.
Methods and material for containment and cleaning up	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

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling	Ensure operatives are trained to minimise exposures. Ensure adequate ventilation Do not breathe vapour. In case of inadequate ventilation wear respiratory protection. Avoid contact with skin and eyes. Do not ingest. Wear protective gloves/eye protection. Take action to prevent static discharges. This product should be kept away from naked flames and other sources of ignition. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work.
Conditions for safe storage, including any incompatibilities	Keep container tightly closed. Bund storage facilities to prevent soil and water pollution in the event of spillage. Store in a cool/low-temperature, well-ventilated (dry) place away from heat and ignition sources.
Storage temperature	Ambient 5 - 25℃
Storage life	Stable under normal conditions
Incompatible materials	Keep away from: Strong oxidising agents, Acids (Nitric acid and sulphuric acid), Halogens and halogenated compounds.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Occupational Exposure Limits

Chemical name	Synonym(s)	CAS No.	TWA (ppm)	TWA (mg/m^3)	STEL (ppm)	STEL (mg/m^3)	Advisory carcinogen category	Other advisory information	Notes
Isopropyl alcohol	Propan-2-ol	67-63-0	400	983	500	1230	-	-	-

Source: Safe Work Australia Workplace Exposure Standards for Airbourne Contaminants (2019)

Biological exposure indicies

Not established

Appropriate engineering controls

Ensure adequate ventilation or use appropriate containment. Atmospheric levels should be controlled in compliance with the occupational exposure limit. Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems. Eyewash bottles should be available.

Individual protection measures, such as personal protective equipment (PPE)

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. Do not eat, drink or smoke at the work place. Wash contaminated clothing before reuse.

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 (EN374). The gloves type used must be chosen based on the work activity and duration as well as concentration/quantity of material being handled. Breakthrough time of the glove material: refer to the information provided by the gloves' producer.
Protective index 6, corresponding > 480 minutes of permeation time according to EN 374. Recommended: Nitrile rubber (Minimum thickness: 0.35mm); Butyl rubber (Minimum thickness: 0.5)

Body protection
Wear suitable coveralls to prevent exposure to the skin.

Respiratory protection

Use only in well-ventilated areas. In case of inadequate ventilation wear respiratory protection.
For large quantities - A suitable mask with filter type A (EN141 or EN405) may be appropriate.

Thermal hazards

Not applicable.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties	Physico-chemical properties of 2-Propanol, unless stated otherwise
Physical state	Liquid
Colour	Blue
Odour	Alcohol-like Odour
Melting point and freezing point	-88.5℃
Boiling point or initial boiling point and boiling range	82.3℃ (Mixture)
Flammability	Not applicable - Liquid
Lower and upper explosion limit or lower and upper flammability limit	Not available
Flash point	11.7 ℃
Auto-ignition temperature	399 ℃
Decomposition temperature	Not established.

pH	Not established.
Kinematic viscosity	2.038 mPa s (dynamic) 25 ℃
Solubility	98% (Water)
Partition coefficient n-octanol/water (log value)	0.05 log Pow (25 ℃)
Vapour pressure	6.02 kPa at 25ºC
Density and Relative density	0.78 (H2O = 1)
Relative vapour density	2.1 (Air = 1)
Particle characteristics	Not applicable (Liquid)
Additional parameters	
Evaporation rate	2.83 (BuAc = 1)
Volatile Organic Compound Content	589 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	Highly flammable liquid and vapour. The vapour may be invisible, heavier than air and spread along ground.
Conditions to avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Incompatible materials	Keep away from: Strong oxidising agents, Acids (Nitric acid and sulphuric acid), Halogens and halogenated compounds.
Hazardous decomposition product(s)	Decomposes in a fire giving off toxic fumes: Carbon monoxide, Carbon dioxide, Nitrogen oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

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 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	Based upon the available data, the classification criteria are not met.
Serious eye damage/irritation	Eye Damage/Irritation - Category 2; Causes serious eye irritation.
2-Propanol	Eye Damage/Irritation - Category 2A. NICNAS classification.
n-Phenyldiethanolamine	Eye Damage/Irritation - Category 1 Corrosive to eyes. (rabbit) (Unnamed, 1974)
Respiratory or skin sensitization	Skin sensitisation – Category 1; May cause an allergic skin reaction.
n-Phenyldiethanolamine	Skin sensitisation – Category 1 Positive sensitising. (Mouse) - OECD 442B / EU Method B.42
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 (Narcotic effects) Specific target organ toxicity — single exposure – Category 2
2-Propanol	Specific target organ toxicity — single exposure - Category 3 (Narcotic effects) May cause drowsiness or dizziness. May cause nausea/vomiting.

n-Phenyldiethanolamine	Specific target organ toxicity — single exposure – Category 1: Causes damage to organs. (Blood)
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.

Early onset symptoms related to exposure
Causes serious eye irritation. May cause an allergic skin reaction. May cause drowsiness or dizziness. May cause nausea/vomiting. May cause damage to organs.

Delayed health effects from exposure
May cause damage to organs.

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-Propanol: 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.

2-Propanol:	Readily biodegradable (according to OECD criteria).
n-Phenyldiethanolamine:	Not readily biodegradable (according to OECD criteria)

Bioaccumulative potential
No data for the mixture as a whole.

2-Propanol:	The substance has low potential for bioaccumulation.
n-Phenyldiethanolamine:	Not anticipated to bioaccumulate

Mobility in soil
No data for the mixture as a whole. The product is predicted to have high mobility in soil. Soluble in water.

2-Propanol:	The substance is predicted to have high mobility in soil. Miscible with water.
n-Phenyldiethanolamine:	The substance is predicted to have high mobility in soil. Soluble in water.

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	UN 1219	UN 1219	UN 1219

Proper Shipping Name	ISOPROPANOL (ISOPROPYL ALCOHOL)	ISOPROPANOL (ISOPROPYL ALCOHOL)	ISOPROPANOL (ISOPROPYL ALCOHOL)
Transport hazard class(es)	3	3	3
Packing group	II	II	II
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	●2YE		

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-Propanol: Tier II: Human Health Assessment
NICNAS - High Volume Industrial Chemical List	2-Propanol: Threshold Range: Between 1,000 and 9,999 tonnes
National Pollutant Inventory	2-Propanol: VOC: Threshold Category = 1a, 2a & 2b
The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)	All chemicals are not listed

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 **Date of First Issue:** 23/02/2021

References:

Safety Data Sheets for ingoing ingredients. National Industrial Chemical Notification and Assessment Scheme (NICNAS).
EU Data: EU: Harmonised Classification(s) for 2-Propanol (CAS No. 67-63-0), Existing ECHA registration(s) for 2-Propanol (CAS No. 67-63-0) and n-Phenyldiethanolamine (CAS No. 120-07-0).

NICNAS IMAP Human health tier II assessments:
2-Propanol: https://www.nicnas.gov.au/chemical-information/imap-assessments/imap-assessment-details?assessment_id=784

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
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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