

# SAFETY DATA SHEET

Version: 4.0  
Date of Issue: 20-Apr-2017  
Date of First Issue: 09-Dec-2011

www.vishaypg.com

ACCORDING TO OSHA HCS (29 CFR 1910.1200)

## SECTION 1: IDENTIFICATION

<b>Product identifier used on the label</b>	M-Coat A
<b>Other means of identification</b>	
Chemical Name	Mixture
CAS No.	Mixture
EINECS No.	Mixture
<b>Recommended use of the chemical and restrictions on use</b>	
Recommended use	Coatings and paints, thinners, paint removers.
Restrictions on use	None known.
<b>Details of the supplier of the safety data sheet</b>	
Supplier	VISHAY MEASUREMENTS GROUP, INC.
Address of Supplier	Post Office Box 27777 Raleigh, NC 27611 USA
Telephone	+1 919-365-3800
Fax	+1 919-365-3945
E-Mail (competent person)	<a href="mailto:mm.us@vishaypg.com">mm.us@vishaypg.com</a>
<b>Emergency telephone number</b>	1-800-424-9300
	CHEMTREC (24 hours)

## SECTION 2: HAZARD(S) IDENTIFICATION

### Classification of the substance or mixture in accordance with paragraph (d) of 29 CFR 1910.1200

Physical hazards	Flammable Liquid, Category 3
Health hazards	Aspiration hazard, Category 1 Acute toxicity, Category 4 (Dermal) Acute toxicity, Category 4 (Inhalation) Skin corrosion/irritation, Category 2 Eye Irritation, Category 2 Specific target organ toxicity — single exposure, Category 3 Specific target organ toxicity — repeated exposure, Category 2
Environmental hazards	Not Classified

Hazard Symbol



Signal Word(s)

Danger

Hazard Statement(s)

Flammable liquid and vapour.  
May be fatal if swallowed and enters airways.  
Harmful in contact with skin.  
Harmful if inhaled.  
Causes skin irritation.  
Causes serious eye irritation.  
May cause respiratory irritation.  
May cause damage to organs through prolonged or repeated exposure.  
(Affected organs: central nervous system, liver, kidney, hearing organs)

# SAFETY DATA SHEET

Version: 4.0  
Date of Issue: 20-Apr-2017  
Date of First Issue: 09-Dec-2011

www.vishaypg.com

ACCORDING TO OSHA HCS (29 CFR 1910.1200)

## Precautionary Statement(s)

Do not breathe vapour.  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Keep container tightly closed.  
Wash hands and exposed skin after use.  
Wear protective gloves/protective clothing/eye protection/face protection.  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
Do NOT induce vomiting.  
IF ON SKIN: Wash with plenty of water.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
Call a POISON CENTER/doctor if you feel unwell.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Get medical advice/attention if you feel unwell.  
Store locked up  
Dispose of contents in accordance with local, state or national legislation.

## Other hazards

None.

## Percent of the mixture consists of ingredient(s) of unknown acute toxicity:

41.3% (Oil Modified Polyurethane)

## 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
Xylene	50 - 60	1330-20-7	215-535-7	Flammable Liquid, Category 3 Aspiration hazard, Category 1 Acute toxicity, Category 4 (Dermal) Acute toxicity, Category 4 (Inhaled) Skin corrosion/irritation, Category 2 Eye Irritation, Category 2 Specific target organ toxicity — single exposure, Category 3 Specific target organ toxicity — repeated exposure, Category 2
Oil Modified Polyurethane	30 - 45	-	-	Not classified
Ethylbenzene	< 10	100-41-4	202-849-4	Flammable Liquid, Category 2 Aspiration hazard, Category 1 Acute toxicity, Category 4 (Inhaled) Specific target organ toxicity — repeated exposure, Category 2 Hazardous to the aquatic environment, Chronic, Category 3

## SECTION 4: FIRST AID MEASURES



### Description of first aid measures

Self-protection of the first aider

Do not breathe vapour. Wear suitable protective clothing. Wear suitable respiratory protective equipment if exposure to high levels of material are likely. Do not use mouth-to-mouth resuscitation.

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or

# SAFETY DATA SHEET

Version: 4.0  
Date of Issue: 20-Apr-2017  
Date of First Issue: 09-Dec-2011

www.vishaypg.com

ACCORDING TO OSHA HCS (29 CFR 1910.1200)

Skin Contact	waistband. Apply artificial respiration if necessary. Call a POISON CENTER/doctor. IF ON SKIN (or hair): Remove contaminated clothing and wash all affected areas with plenty of water. Contaminated clothing should be thoroughly cleaned. 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. Do not give anything by mouth to an unconscious person. Do NOT induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration into the lungs. Immediately call a POISON CENTER/doctor.
<b>Most important symptoms and effects, both acute and delayed</b>	May be fatal if swallowed and enters airways. Harmful in contact with skin or if inhaled. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure.
<b>Indication of any immediate medical attention and special treatment needed</b>	Treat symptomatically. IF SWALLOWED: Do NOT induce vomiting.

## SECTION 5: FIRE-FIGHTING MEASURES

<b>Extinguishing media</b> Suitable Extinguishing Media Unsuitable extinguishing Media	Extinguish preferably with foam, carbon dioxide or dry chemical. Water is not generally recommended since it can be ineffective; however, it can be used successfully to cool containers exposed to the fire and to disperse fumes.
<b>Special hazards arising from the substance or mixture</b>	Flammable liquid and vapour. May decompose in a fire giving off toxic fumes. Carbon oxides and traces of incompletely burned carbon compounds. May form explosive mixture with air particularly in enclosed spaces. Vapours are heavier than air and may travel considerable distances to a source of ignition and flashback.
<b>Special protective equipment and precautions for fire fighters</b>	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

<b>Personal precautions, protective equipment and emergency procedures</b>	Ensure adequate ventilation. Stop leak if safe to do so. Eliminate all ignition sources if safe to do so. Take precautionary measures against static discharges. Avoid contact with skin, eyes or clothing. Do not breathe vapour. Ensure suitable personal protection during removal of spillages. See Section: 8.
<b>Methods and material for containment and cleaning up</b>	Ensure suitable personal protection (including respiratory protection) during removal of spillages. Contain spillages. Use non-sparking equipment when picking up flammable spill. Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a container for disposal. 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

<b>Precautions for safe handling</b>	Ensure adequate ventilation. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Avoid contact with skin, eyes or clothing. Do not breathe vapour. 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.
<b>Conditions for safe storage, including any incompatibilities</b>	Keep only in original container. Store in a well-ventilated place. Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and

# SAFETY DATA SHEET

Version: 4.0  
Date of Issue: 20-Apr-2017  
Date of First Issue: 09-Dec-2011

www.vishaypg.com

ACCORDING TO OSHA HCS (29 CFR 1910.1200)

Storage temperature  
Incompatible materials

other ignition sources. No smoking.  
Ambient.

Keep away from: Strong oxidising agents and polymerisation catalysts, such as peroxy or azo compounds, strong acids, alkalis and oxidising agents.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 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
Xylene	1330-20-7	100	435	150*	655*	NIOSH
		100	435	-	-	OSHA
		100	-	150	-	ACGIH, A4
Ethylbenzene	100-41-4	100	435	125*	545*	NIOSH
		100	435	-	-	OSHA
		20	-	-	-	ACGIH, A3

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

\*NIOSH 15 minute average values

A4: Not Classifiable as a Human Carcinogen: Agents which cause concern that they could be carcinogenic for humans but which cannot be assessed conclusively because of the lack of data. In vitro or animal studies do not provide indications of carcinogenicity which are sufficient to classify the agent into one of the other categories.

A3: Confirmed Animal Carcinogen with Unknown Relevance to Humans: The agent is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histological type(s), or by mechanism(s) that may not be relevant to worker exposure. Available epidemiological studies do not confirm an increased risk of cancer in exposed humans. Available evidence does not suggest that the agent is likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure.

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

### Biological Exposure Indices

SUBSTANCE	CAS No.	Determinant	Biological Exposure Indices	Sampling Time	Note
Xylene	1330-20-7	Methylhippuric acids in urine.	15 g/g Creatinine	End of shift	-
Ethylbenzene	100-41-4	Sum of mandelic acid and phenylglyoxylic acid in urine	0.15 g/g Creatinine	End of shift	Ns

Source: 2015 ACGIH Biological Exposure Indices (BEIs)

Ns - Nonspecific

The other components listed in Section 3 do not have biological exposure indices.

### 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 contact with skin, eyes or clothing. Do not breathe vapour. 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. Gloves should be changed regularly

# SAFETY DATA SHEET

Version: 4.0  
Date of Issue: 20-Apr-2017  
Date of First Issue: 09-Dec-2011

www.vishaypg.com

ACCORDING TO OSHA HCS (29 CFR 1910.1200)



Respiratory protection



to avoid permeation problems. Breakthrough time of the glove material: refer to the information provided by the gloves' producer.

Body protection: Wear impervious protective clothing, including boots, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

In case of inadequate ventilation wear respiratory protection. Open system(s): Wear suitable respiratory protective equipment.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Appearance	Amber liquid
Odor	Benzene-like aromatic odour
Odor Threshold	Not established.
pH	Not available.
Melting Point/Freezing Point	Not available.
Initial boiling point and boiling range	137°C
Flash Point	26°C [Closed cup]
Evaporation rate (Butyl acetate = 1)	0.6 (BuAc = 1)
Flammability (solid, gas)	Liquid - Not applicable
Upper/lower flammability or explosive limits	Flammable Limits (Lower) (%v/v): 1.0 (Air) Flammable Limits (Upper) (%v/v): 7.0 (Air)
Vapour pressure	>1.1 bar
Vapour density	3.6 (Air = 1)
Relative density	1.14 g/cm <sup>3</sup>
Solubility(ies)	Insoluble in water.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	Not available.

### Other information

Volatile Organic Compound Content: 589 g/l

## SECTION 10: STABILITY AND REACTIVITY

<b>Reactivity</b>	Stable under normal conditions.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Flammable liquid and vapour. The vapour may be invisible, heavier than air and spread along ground. May form explosive mixture with air particularly in enclosed spaces. Susceptible to violent exothermic polymerisation, initiated by heating or the presence of catalysts.
<b>Conditions to avoid</b>	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
<b>Incompatible materials</b>	Keep away from: Strong oxidising agents and polymerisation catalysts, such as peroxy or azo compounds, strong acids, alkalis and oxidising agents.
<b>Hazardous decomposition product(s)</b>	May decompose in a fire giving off toxic fumes. Carbon oxides and traces of incompletely burned carbon compounds.

## 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 LC50 > 2000 mg/kg bw/day.

# SAFETY DATA SHEET



Version: 4.0  
Date of Issue: 20-Apr-2017  
Date of First Issue: 09-Dec-2011

www.vishaypg.com

ACCORDING TO OSHA HCS (29 CFR 1910.1200)

<b>Acute toxicity - Inhalation</b>	Acute toxicity, Category 4: Harmful if inhaled. Acute Toxicity Estimate Mixture Calculation: Estimated LC50 19.0 mg/l.
<b>Acute toxicity - Skin Contact</b>	Acute toxicity, Category 4: Harmful in contact with skin. Acute Toxicity Estimate Mixture Calculation: Estimated LC50 1896.6 mg/kg bw/day.
<b>Skin corrosion/irritation</b>	Skin corrosion/irritation, Category 2: Causes skin irritation.
<b>Serious eye damage/irritation</b>	Eye Irritation, Category 2: Causes serious eye irritation.
<b>Respiratory or skin sensitization</b>	Based upon the available data, the classification criteria are not met.
<b>Germ cell mutagenicity</b>	Based upon the available data, the classification criteria are not met.
<b>Carcinogenicity</b>	Based upon the available data, the classification criteria are not met.
<b>Reproductive toxicity</b>	Based upon the available data, the classification criteria are not met.
<b>STOT - single exposure</b>	Specific target organ toxicity — single exposure, Category 3: May cause respiratory irritation.
<b>STOT - repeated exposure</b>	Specific target organ toxicity — repeated exposure, Category 2: May cause damage to organs through prolonged or repeated exposure. (Affected organs: central nervous system, liver, kidney, hearing organs)
<b>Aspiration hazard</b>	Aspiration hazard, Category 1: May be fatal if swallowed and enters airways.
<b>Information on likely routes of exposure</b>	
Inhalation	Possible – accidental exposure
Ingestion	Unlikely – accidental exposure
Skin Contact	Possible – accidental exposure
Eye Contact	Unlikely – accidental exposure
<b>Early onset symptoms related to exposure</b>	Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.
<b>Delayed health effects from exposure</b>	May cause damage to organs through prolonged or repeated exposure. (Affected organs: central nervous system, liver, kidney, hearing organs). May be fatal if swallowed and enters airways.
<b>Other information</b>	
NTP Report on Carcinogens	Not listed
IARC Monographs	Xylene: Group 3 - Not classifiable as to its carcinogenicity to humans. Ethylbenzene: Group 2B – Possibly carcinogenic to humans.
OSHA Designated Carcinogen	Not listed

## SECTION 12: ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Based upon the available data, the classification criteria are not met. Estimated Mixture LC50 > 100 mg/l (Fish)
<b>Persistence and degradability</b>	Part of the components are biodegradable.
<b>Bioaccumulative potential</b>	No data.
<b>Mobility in soil</b>	The product is predicted to have low mobility in soil (Insoluble in water).
<b>Other adverse effects</b>	None known.

## SECTION 13: DISPOSAL CONSIDERATIONS

<b>Waste treatment methods</b>	Do not release undiluted and unneutralised to the sewer. Dispose of contents in accordance with local, state or national legislation. This material and its container must be disposed of as hazardous waste.
<b>Additional Information</b>	Containers of this material may be hazardous when empty since they retain product residue.

## SECTION 14: TRANSPORT INFORMATION

UN number	ADR/RID	IMDG	IATA
	UN 1263	UN 1263	UN 1263

# SAFETY DATA SHEET



Version: 4.0  
 Date of Issue: 20-Apr-2017  
 Date of First Issue: 09-Dec-2011

www.vishaypg.com

ACCORDING TO OSHA HCS (29 CFR 1910.1200)

UN proper shipping name	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL
Transport hazard class(es)	3	3	3
Packing group	III	III	III
Environmental hazards	Not classified as a Marine Pollutant.	Not classified as a Marine Pollutant.	Not classified as a Marine Pollutant.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.		
Special precautions for user	See Section: 2		

## SECTION 15: REGULATORY INFORMATION

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

#### US Federal Regulations

TSCA (Toxic Substance Control Act)	Xylene - Subject to 25,000 lb reporting threshold Ethylbenzene - Subject to 25,000 lb reporting threshold Not Listed
EPCRA/SARA Section 302 Extremely Hazardous Substances	Not Listed
EPCRA Section 313 Toxics Release Inventory (TRI) Program	Xylene - De Minimis limit: 1% Ethylbenzene - De Minimis limit: 1%
NIOSH Occupational Carcinogen List	Not Listed
OSHA List of highly hazardous chemicals, toxics and reactives	Not Listed
NTP Report on Carcinogens (RoC) List	Not Listed
Poison Prevention Packaging Act	Xylene - Substance requiring special packaging - Solvents for paint or other similar surface-coating materia

#### US State Regulations

California State, Proposition 65 List	Ethylbenzene - Safe harbor level - NSRL: 54 (inhalation) ug/day, 41 (oral) ug/day
California State, Safer Consumer Products Regulations	Xylene - Initial Candidate Chemicals List Ethylbenzene - Initial Candidate Chemicals List
Maine State, Toxic Chemicals in Children's Products Act	Ethylbenzene - COC List
New Jersey State Worker and Community RTK Act	Xylene - RTKHSL. SHHSL Ethylbenzene - RTKHSL. SHHSL
Pennsylvania State, Worker and Community RTK Act	Xylene - Hazardous Substance List Ethylbenzene - Hazardous Substance List. Environmental Hazard List
Rhode Island State, Hazardous Substances RTK Act	Xylene - Hazardous Substance List Ethylbenzene - Hazardous Substance List

#### Non-Regional

IARC Monographs, List of Classifications	Xylene - Group 3 Ethylbenzene - Group 2B
------------------------------------------	---------------------------------------------

## SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: Updated mixture classification. New SDS Regulation compliant with HazCom 2012 format, all sections have been updated to include new information. Please review SDS with care.

Version 4.0  
 Revision Date 20-Apr-2017  
 Date of First Issue 09-Dec-2011

### References:

Existing Safety Data Sheet (SDS)  
 EU Data: Existing ECHA registration(s) for Xylene (CAS# 1330-20-7) and Ethylbenzene (CAS# 100-41-4). and Harmonised Classification(s) for Xylene (CAS# 1330-20-7) and Ethylbenzene (CAS# 100-41-4).

GHS Classification of the substance or mixture	Classification Procedure
Flammable Liquid, Category 3	Flash Point [Closed cup] Test Result/ Boiling Point (°C)
Aspiration hazard, Category 1	Estimated Viscosity



# SAFETY DATA SHEET



Version: 4.0

Date of Issue: 20-Apr-2017

Date of First Issue: 09-Dec-2011

www.vishaypg.com

ACCORDING TO OSHA HCS (29 CFR 1910.1200)

Acute toxicity, Category 4 (Dermal)	Acute Toxicity Estimate Mixture Calculation
Skin corrosion/irritation, Category 2	Threshold Calculation
Eye Irritation, Category 2	Threshold Calculation
Acute toxicity, Category 4 (Inhalation)	Acute Toxicity Estimate Mixture Calculation
Specific target organ toxicity — single exposure, Category 3	Threshold Calculation
Specific target organ toxicity — repeated exposure, Category 2	Threshold Calculation

## LEGEND

ACGIH: American Conference of Governmental Industrial Hygienists

BEI: Biological Exposure Indices (ACGIH)

IARC: International Agency for Research on Cancer

Irr: Irritation

NIOSH: National Institute of Occupational Safety and Health

NTP: National Toxicology Program

OSHA: The Occupational Safety & Health Administration

PBT: Persistent, Bioaccumulative and Toxic

PEL: Permissible exposure limit

REL: Recommended exposure limit

SCL: Specific Concentration Limit

Skin<sup>2</sup>: Risk of overexposure via dermal contact

STEL: Short Term Exposure Limit

TLV: Threshold Limit value

TSCA: Toxic Substance Control Act

TWA: Time Weighted Average

URT: Upper respiratory tract

vPvB: very Persistent and very Bioaccumulative

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

Information contained in this publication or as otherwise supplied to Users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose. Vishay Precision Group gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that exclusion is prevented by law. Vishay Precision Group accepts no liability for loss or damage (other than that arising from death or personal injury caused by defective product, if proved), resulting from reliance on this information. Freedom under Patents, Copyright and Designs cannot be assumed.





## Disclaimer

ALL PRODUCTS, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Vishay Precision Group, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "VPG"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

The product specifications do not expand or otherwise modify VPG's terms and conditions of purchase, including but not limited to, the warranty expressed therein.

VPG makes no warranty, representation or guarantee other than as set forth in the terms and conditions of purchase. **To the maximum extent permitted by applicable law, VPG disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.**

Information provided in datasheets and/or specifications may vary from actual results in different applications and performance may vary over time. Statements regarding the suitability of products for certain types of applications are based on VPG's knowledge of typical requirements that are often placed on VPG products. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. You should ensure you have the current version of the relevant information by contacting VPG prior to performing installation or use of the product, such as on our website at [vpgsensors.com](http://vpgsensors.com).

No license, express, implied, or otherwise, to any intellectual property rights is granted by this document, or by any conduct of VPG.

The products shown herein are not designed for use in life-saving or life-sustaining applications unless otherwise expressly indicated. Customers using or selling VPG products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify VPG for any damages arising or resulting from such use or sale. Please contact authorized VPG personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.

Copyright Vishay Precision Group, Inc., 2014. All rights reserved.