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Product identifier used on the label	MCoat JA Part A	
Other means of identification	Not applicable	
Recommended use of the chemical and restrictions		
on use Recommended use	Sealants	
Restrictions on use	For professional users only.	
Details of the supplier of the safety data sheet		
Supplier	VISHAY MEASUREMENTS GROU	IP, 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)	mm.us@vishaypg.com	
Emergency telephone number	1-800-424-9300	CHEMTREC (24 hours)
ON 2: HAZARD(S) IDENTIFICATION		
Classification of the substance or mixture in		
accordance with paragraph (d) of 29 CFR 1910.1200		
Physical hazards	Not classified	
Health hazards	Acute toxicity, Category 4 – Oral	
	Skin corrosion/irritation, Category 2	
	Skin Sensitisation, Category 1	
	Eye Irritation, Category 2	
	Specific target organ toxicity - rep	eated exposure, Category 2
Environmental hazards	Hazardous to the aquatic environm	
	•	•
Hazard Symbol		
Signal Word(s)	WARNING	
Signal Word(s) Hazard Statement(s)	Harmful if swallowed.	
	Harmful if swallowed. Causes skin irritation.	
	Harmful if swallowed. Causes skin irritation. May cause an allergic skin reactior	
	Harmful if swallowed. Causes skin irritation. May cause an allergic skin reactior Causes serious eye irritation.	
	Harmful if swallowed. Causes skin irritation. May cause an allergic skin reactior Causes serious eye irritation.	igh prolonged or repeated exposure.
Hazard Statement(s)	Harmful if swallowed. Causes skin irritation. May cause an allergic skin reactior Causes serious eye irritation. May cause damage to organs throu Toxic to aquatic life with long lastin	igh prolonged or repeated exposure.
Hazard Statement(s)	Harmful if swallowed. Causes skin irritation. May cause an allergic skin reactior Causes serious eye irritation. May cause damage to organs throu Toxic to aquatic life with long lastin Do not breathe vapour.	igh prolonged or repeated exposure. g effects.
Hazard Statement(s)	Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction Causes serious eye irritation. May cause damage to organs throu Toxic to aquatic life with long lastin Do not breathe vapour. Wash hands and exposed skin tho	igh prolonged or repeated exposure. g effects. roughly after handling.
Hazard Statement(s)	Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction Causes serious eye irritation. May cause damage to organs throu Toxic to aquatic life with long lastin Do not breathe vapour. Wash hands and exposed skin tho Wear protective gloves/protective of	igh prolonged or repeated exposure. g effects. roughly after handling. lothing/eye protection/face protection.
	Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction Causes serious eye irritation. May cause damage to organs throu Toxic to aquatic life with long lastin Do not breathe vapour. Wash hands and exposed skin tho Wear protective gloves/protective of IF SWALLOWED: Call a POISON of	igh prolonged or repeated exposure. g effects. roughly after handling. lothing/eye protection/face protection.
Hazard Statement(s)	Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction Causes serious eye irritation. May cause damage to organs throu Toxic to aquatic life with long lastin Do not breathe vapour. Wash hands and exposed skin tho Wear protective gloves/protective of IF SWALLOWED: Call a POISON of Rinse mouth.	igh prolonged or repeated exposure. g effects. roughly after handling. lothing/eye protection/face protection. CENTER/doctor if you feel unwell.
Hazard Statement(s)	Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction Causes serious eye irritation. May cause damage to organs throu Toxic to aquatic life with long lastin Do not breathe vapour. Wash hands and exposed skin tho Wear protective gloves/protective of IF SWALLOWED: Call a POISON of	igh prolonged or repeated exposure. g effects. roughly after handling. lothing/eye protection/face protection. CENTER/doctor if you feel unwell. ater.

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lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention. IF exposed or concerned: Call a POISON CENTER/doctor.

#### Other hazards

None known

0%

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

#### 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
Manganese dioxide	< 50	1313-13-9	215-202-6	Acute toxicity, Category 4 – Oral Acute toxicity, Category 4 – Inhalation Specific target organ toxicity — repeated exposure, Category 2
Terphenyl, hydrogenated	< 50	61788-32-7	262-967-7	Hazardous to the aquatic environment, Chronic , Category 4
Bis (piperidinothiocarbonyl) tetrasulphide	< 3	120-54-7	204-406-0	Skin Sensitisation, Category 1
Terphenyl	< 2	26140-60-3	247-477-3	Hazardous to the aquatic environment, Acute, Category 1 Hazardous to the aquatic environment, Chronic , Category 1
Sodium hydroxide	< 1	1310-73-2	215-185-5	Skin corrosion/irritation, Category 1A Eye damage, category 1 Metal Corrosive, Category 1
Poly(oxy-1,2-ethanediyl), α-[(1,1,3,3- tetramethylbutyl)phenyl]-ω-hydroxy-	< 0.5	9036-19-5	618-541-1	Acute toxicity, Category 4 – Oral Eye damage, category 1 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 victim to fresh air and keep at rest in a position comfortable for breathing. IF exposed or concerned: Get medical advice/attention.
Skin Contact	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If irritation (redness, rash, blistering) develops, get medical 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 induce vomiting unless instructed to do so by medical personnel. Call a POISON CENTER/doctor if you feel unwell.
Most important symptoms and effects, both acute and delayed	Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause damage to organs through prolonged or repeated exposure.

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Indication of any immediate medical attention and Treat symptomatically. special treatment needed

#### SECTION 5: FIRE-FIGHTING MEASURES

**Extinguishing media** Suitable Extinguishing Media

Unsuitable extinguishing Media Special hazards arising from the substance or mixture As appropriate for surrounding fire. Extinguish with carbon dioxide, dry chemical, foam or waterspray.

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

May decompose in a fire giving off toxic fumes. Decomposes in a fire giving off toxic fumes: Carbon monoxide, Carbon dioxide, Nitrogen oxides, Sulphur oxides, metal oxides.

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.

#### SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and<br/>emergency proceduresAv

**Environmental precautions** 

Methods and material for containment and cleaning up Small spillages:

Large spillages:

Avoid breathing vapours. Avoid all contact. Ensure adequate ventilation. Stop leak if safe to do so. Use personal protective equipment as required. See Section: 8.

Avoid release to the environment. Do not allow to enter drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be alerted to the Environment Agency or other appropriate regulatory body.

Stop leak if safe to do so. Dilute with water. Adsorb spillages onto sand, earth or any suitable adsorbent material. Ventilate the area and wash spill site after material pick-up is complete. Transfer to a container for disposal. Dispose of this material and its container as hazardous waste (2008/98/EEC).

Stop leak if safe to do so. Keep upwind. Adsorb spillages onto sand, earth or any suitable adsorbent material. Ventilate the area and wash spill site after material pick-up is complete. Transfer to a container for disposal. Dispose of this material and its container as hazardous waste (2008/98/EEC).

### SECTION 7: HANDLING AND STORAGE

Precautions for safe handling	Avoid all contact. Do not breathe vapour. Do not ingest. Ensure adequate ventilation. 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.
Conditions for safe storage, including any	Store in a well-ventilated place. Keep container tightly closed. Keep cool. Keep
incompatibilities	away from heat, sources of ignition and direct sunlight.
Storage temperature	Store above (°C): 5 (41 °F)
Storage life	Stable under normal conditions.
Unsuitable containers:	None known.
Incompatible materials	Keep away from: Oxidizing agents and Acids. Keep from direct sunlight.

#### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### **Occupational Exposure Limits**

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m³)	STEL (ppm)	STEL (mg/m³)	Note
Terphenyl,	61788-32-7	0.2	5	-	-	NIOSH
hydrogenated	01700-32-7	0.5	-	-	-	ACGIH
Terphenyl	26140-60-3	-	-	0.5*	5*	NIOSH

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		-	-	1	9	OSHA
		-	-	-	5*	ACGIH
Sodium hydroxide	1310-73-2	-	-	-	2^	NIOSH, ACGIH
Socialiti Hydroxide	1310-73-2	-	2	-	-	OSHA

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

^ Ceiling limit value (15 min)

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

Biological Exposure Indices	Not established
Appropriate engineering controls	Ensure adequate ventilation. Atmospheric levels should be controlled in compliance with the occupational exposure limit. Guarantee that the eye flushing systems and safety showers are located close to the working place.
Individual protection measures, such as personal protective equipment (PPE)	General hygiene measures for the handling of chemicals are applicable. Avoid all contact. 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 (EN166).
Skin protection	Hand protection: Wear impervious gloves (EN374). Gloves should be changed regularly 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.
Respiratory protection	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	Black, Liquid
Odor	Not determined.
Odor Threshold	Not available.
рН	Not established.
Melting Point/Freezing Point	Not available.
Initial boiling point and boiling range	> 37.78 °C
Flash Point	98.89 °C [Closed cup]
Evaporation rate (Butyl acetate = 1)	Not established.
Flammability (solid, gas)	Not applicable - Liquid
Upper/lower flammability or explosive limits	Not applicable
Vapour pressure	0.27 kPa (2.03 mm Hg) @ 20°C
Vapour density	Terphenyl, hydrogenated: 7.95 (Air = 1)
Relative density	1.65 g/cm <sup>3</sup>
Solubility(ies)	Insoluble in cold water.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.

<sup>\*</sup> Ceiling limit value

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**Decomposition Temperature** Viscositv

Not available.

# SECTION 10: STABILITY AND REACTIVITY

Reactivity **Chemical stability** Possibility of hazardous reactions Conditions to avoid Incompatible materials Hazardous decomposition product(s)

# > 0.21 cm2/s @ 40°C

Stable under normal conditions Stable under normal conditions. Hazardous polymerisation will not occur. Keep away from heat, sources of ignition and direct sunlight. Keep away from: Oxidizing agents and Acids. Decomposes in a fire giving off toxic fumes: Carbon monoxide, Carbon dioxide, Nitrogen oxides, Sulphur oxides, metal oxides.

#### SECTION 11: TOXICOLOGICAL INFORMATION

#### Information on toxicological effects (Substances in preparations / mixtures) Acute toxicity - Ingestion Acute toxicity, Category 4; Harmful if swallowed. Acute Toxicity Estimate Mixture Calculation: Estimated LC50 994.4 mg/kg bw/day. Acute toxicity - Inhalation Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: Estimated LC50 22 mg/l. Acute toxicity - 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 corrosion/irritation, Category 2; Causes skin irritation. Serious eye damage/irritation Eye Irritation, Category 2; Causes eye irritation. Respiratory or skin sensitization Skin Sensitisation, Category 1: May cause an allergic skin reaction. 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 Based upon the available data, the classification criteria are not met. STOT - repeated exposure Specific target organ toxicity - repeated exposure, Category 2; May cause damage to organs through prolonged or repeated exposure. Aspiration hazard Based upon the available data, the classification criteria are not met. Information on likely routes of exposure Inhalation Possible - accidental exposure Ingestion Unlikely - accidental exposure Skin Contact Possible - accidental exposure Eye Contact Unlikely - accidental exposure Early onset symptoms related to exposure Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Delayed health effects from exposure May cause damage to organs through prolonged or repeated exposure. Other information NTP Report on Carcinogens All chemicals are not listed All chemicals are not listed IARC Monographs **OSHA** Designated Carcinogen All chemicals are not listed

# SECTION 12: ECOLOGICAL INFORMATION

#### Ecotoxicity

Persistence and degradability **Bioaccumulative potential** 

Aquatic Chronic 2; Toxic to aquatic life with long lasting effects. Estimated Mixture LC50 >1 < 10 mg/l (Fish) No data for the mixture as a whole. No data for the mixture as a whole.

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Mobility in soil Other adverse effects The product is predicted to have low mobility in soil. Insoluble in cold water. Not classified as PBT or vPvB. None known.

### SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

**Additional Information** 

This material and its container must be disposed of as hazardous waste (2008/98/EEC). Send after pre-treatment to a appropriate hazardous waste incinerator facility according to legislation.

Dispose of contents in accordance with local, state or national legislation.

### **SECTION 14: TRANSPORT INFORMATION**

UN number UN proper shipping name	ADR/RID UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (Terphenyl)	IMDG UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (Terphenyl)	IATA UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (Terphenyl)
Transport hazard class(es)	9	9	9
Packing group	111	III	111
Environmental hazards	Environmentally hazardous substance	Classified as a Marine Pollutant.	Environmentally hazardous substance
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/legislati US Federal Regulations	on specific for the substance or mixture
TSCA (Toxic Substance Control Act)	Manganese dioxide: Subject to 25,000 lb reporting threshold
	Terphenyl, hydrogenated: Subject to 25,000 lb reporting threshold
	Bis (piperidinothiocarbonyl) tetrasulphide: Subject to 25,000 lb reporting threshold
	Terphenyl: Subject to 25,000 lb reporting threshold
	Sodium hydroxide: Subject to 25,000 lb reporting threshold
	Poly(oxy-1,2-ethanediyl), $\alpha$ -[(1,1,3,3-tetramethylbutyl)phenyl]- $\omega$ -hydroxy-:
	Exempt from reporting under CDR
EPCRA/SARA Section 302 Extremely Hazardous	All chemicals are not listed
Substances	
EPCRA Section 313 Toxics Release Inventory (TRI)	Manganese dioxide: De Minimis limit: 1%
Program	0
NIOSH Occupational Carcinogen List	All chemicals are not listed
OSHA List of highly hazardous chemicals, toxics and reactives	All chemicals are not listed
NTP Report on Carcinogens (RoC) List	All chemicals are not listed
Poison Prevention Packaging Act	Sodium hydroxide: Substance requiring special packaging
US State Regulations	
California State, Proposition 65 List	All chemicals are not listed
California State, Safer Consumer Products Regulations	Sodium hydroxide: Candidate Chemicals List
Maine State, Toxic Chemicals in Children's Products Act	Terphenyl: COC list
New Jersey State Worker and Community RTK Act	Manganese dioxide: Manganese compound – RTKHSL
	Terphenyl, hydrogenated: RTKHSL
	Terphenyl: RTKHSL
	Sodium hydroxide: RTKHSL. SHHSL
Pennsylvania State, Worker and Community RTK Act	Manganese dioxide: Manganese compound - Hazardous Substance List. Environmental Hazard List
	Terphenyl, hydrogenated: Hazardous Substance List

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Terphenyl: Hazardous Substance List Sodium hydroxide: Hazardous Substance List. Environmental Hazard List Sodium hydroxide: Hazardous Substance List. Environmental Hazard List Sodium hydroxide: Hazardous Substance List) Non-Regional IARC Monographs, List of Classifications All chemicals are not listed

# **SECTION 16: OTHER INFORMATION**

The following sections contain revisions or new statements: Updated substance / 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	3.0
Revision Date	26 April 2017
Date of First Issue	19 June 2015

#### References:

Existing Safety Data Sheet (SDS), EU Data: Harmonised Classification(s) for Sodium hydroxide (CAS No. 1310-73-2), Manganese dioxide (CAS No. 1313-13-9). Existing ECHA registration(s) for Manganese dioxide (CAS No. 1313-13-9), Terphenyl, hydrogenated (CAS No. 61788-32-7), Terphenyl (CAS No. 26140-60-3), Sodium hydroxide (CAS No. 1310-73-2), the Classification and Labelling Inventory for Poly(oxy-1,2-ethanediyl),  $\alpha$ -[(1,1,3,3-tetramethylbutyl)phenyl]- $\omega$ -hydroxy- (CAS No. 9036-19-5), Bis (piperidinothiocarbonyl) tetrasulphide (CAS No. 120-54-7).

GHS Classification of the substance or mixture	Classification Procedure
Acute toxicity, Category 4	Acute Toxicity Estimate Mixture Calculation
Skin corrosion/irritation, Category 2	Threshold Calculation
Skin Sensitisation, Category 1	Threshold Calculation
Eye Irritation, Category 2	Threshold Calculation
Specific target organ toxicity — repeated exposure,	Threshold Calculation
Category 2	
Hazardous to the aquatic environment, Chronic , Category 2	Summation Calculation

#### LEGEND

ACGIH: American Conference of Governmental Industrial Hygienists	REL: Recommended exposure limit
BEI: Biological Exposure Indices (ACGIH)	SCL: Specific Concentration Limit
IARC: International Agency for Research on Cancer	Skin": Risk of overexposure via dermal contact
Irr: Irritation	STEL: Short Term Exposure Limit
NIOSH: National Institute of Occupational Safety and Health	TLV: Threshold Limit value
NTP: National Toxicology Program	TSCA: Toxic Substance Control Act
OSHA: The Occupational Safety & Health Administration	TWA: Time Weighted Average
PBT: Persistent, Bioaccumulative and Toxic	URT: Upper respiratory tract
PEL: Permissible exposure limit	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.

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