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In accordance with Schedule 1 of Hazardous Products Regulations (HPR) (WHMIS 2015)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name M-Coat C
Other Means of Identification None

Recommended use and restrictions

Recommended use Coatings and paints, thinners, paint removers.

Restrictions on use None known.

Initial Supplier Identifier

Company Identification VISHAY MEASUREMENTS GROUP, INC.

Telephone Post Office Box 27777 Raleigh, NC 27611

USA

E-Mail (competent person) <u>mm.us@vishaypg.com</u>

Emergency telephone number

Emergency Phone No. 1-800-424-9300 CHEMTREC (24 hours)

Languages spoken English

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

In accordance with Schedule 1 of Hazardous Products Regulations (HPR) (WHMIS 2015)

Flammable Liquid - Category 3 Aspiration hazard - Category 1 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

Aquatic toxicity, Chronic - Category 2

Label elements

Hazard Pictogram(s)







Signal Word(s) DANGER

Hazard Statement(s) Flammable liquid and vapour.

May be fatal if swallowed and enters airways.

Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
May cause drowsiness or dizziness.

May cause damage to organs through prolonged or repeated exposure.

Precautionary Statement(s) Keep away from heat, hot surfaces, sparks, open flames and other ignition

sources. No smoking.

Ground/bond container and receiving equipment.

Use non-sparking handtools.

Wear protective gloves/protective clothing/eye protection/face protection.

Take off contaminated clothing and wash it before reuse.

Do not induce vomiting.

Do not breathe dust/fume/gas/mist/vapours/spray.

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IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF ON SKIN: Wash with plenty of water.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

Get medical advice/attention if you feel unwell.

Store locked up.

Store in a well-ventilated place. Keep cool.

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

Other hazards

Contact with water or humid air will form methanol. Product generates methyl alcohol which may cause blindness and damage to nervous system.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances Not applicable

Mixtures

GHS Classification

Chemical Name	CAS No.	Concentration (%W/W)	Common name(s), synonym(s) of the substance	Hazard classification
Xylene	1330-20-7	10 - 30	1,2 dimethylbenzene; 1,2- xylene; Benzene, dimethyl	Flammable Liquid - Category 3 Aspiration hazard - Category 1 Acute toxicity (Dermal) - Category 4 Acute toxicity (Inhalation) - Category 4 Skin corrosion/irritation - Category 2 Eye Irritation - Category 2 Specific target organ toxicity — single exposure - Category 3 (Respiratory tract) Specific target organ toxicity — repeated exposure - Category 2 (Central nervous system, Liver, Kidneys) Aquatic toxicity, Chronic - Category 2
Solvent naphtha (petroleum), light aliph.*	64742-89-8	7 - 10	aliphatic hydrocarbons (c7- c8 saturated); Low boiling point naphtha; Light aliphatic solvent naphtha (petroleum)	Flammable Liquid - Category 3 Aspiration hazard - Category 1 Skin corrosion/irritation - Category 2 Germ cell mutagenicity - Category 1B Carcinogenicity - Category 1B Specific target organ toxicity — single exposure - Category 3 (Narcosis) Aquatic toxicity, Chronic - Category 2
Trimethoxy(methyl)sila ne	1185-55-3	5 - 10	Alkoxyalkylsilane; Methyltrimethoxysilane	Flammable Liquid - Category 2

Prescribed Concentration Ranges used for trade secret purposes (Canada Gazette, Part II, Vol. 152, No. 8)

SECTION 4: FIRST AID MEASURES



Description of first aid measures

Self-protection of the first aider

Use personal protective equipment as required. Wear appropriate personal protective equipment, avoid direct contact. Contaminated clothing should be laundered before reuse. Do not breathe vapour. Ensure adequate ventilation.

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^{*} Contains: < 0.1% benzene

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

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 waistband. If breathing is laboured, oxygen should be administered by qualified personnel. Call a POISON CENTER/doctor if you feel unwell.

IF ON SKIN: Remove contaminated clothing immediately and drench affected skin with plenty of water, then wash with soap and water. Contaminated clothing should be laundered before reuse. If skin irritation or rash 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. Do not give milk or alcoholic beverages. Do not give anything by mouth to an unconscious person. Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration into the lungs. Aspiration into the

lungs may cause chemical pneumonitis, which can be fatal.

May be fatal if swallowed and enters airways. May be harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure. Product generates methyl alcohol which may cause blindness and damage to nervous system.

Treat symptomatically.

IF SWALLOWED: Material may be aspirated into the lungs and cause chemical pneumonitis

Inhalation

Eye Contact

Skin Contact

Ingestion

Most important symptoms and effects, both acute and delayed

Indication of any immediate medical attention and 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. Extinguishing media: Water spray, dry powder or carbon dioxide.

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

Flammable liquid and vapour. May decompose in a fire giving off toxic fumes. Silicon Dioxide, Silicon Oxide, Carbon oxides and traces of incompletely burned carbon compounds. Product may emit formaldehyde vapour at temperatures above 180°C in the presence of air. Formaldehyde vapour is a suspected carcinogen, toxic by inhalation and irritating to eyes and the respiratory system. Exposure limits should be strictly respected. Vapours are heavier than air and may travel considerable distances to a source of ignition and flashback. Containers may explode when involved in a fire.

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 emergency procedures

Ensure adequate ventilation. Stop leak if safe to do so. Eliminate all ignition sources if safe to do so. Avoid all contact. Do not breathe vapour. Use personal protective equipment as required. See Section: 8. The vapour is heavier than air; beware of pits and confined spaces.

Environmental precautions

Reference to other sections

Avoid release to the environment. Do not allow to enter drains, sewers or

Methods and material for containment and cleaning up

Ensure full personal protection (including respiratory protection) during removal of spillages. Stop leak if safe to do so. Keep upwind. Use non-sparking equipment when picking up flammable spill. Adsorb spillages onto sand, earth or any suitable adsorbent material. 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

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SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Ensure operatives are trained to minimise exposures. Do not handle until all safety precautions have been read and understood. Ensure adequate ventilation. Avoid all contact. Do not breathe vapour. Use personal protective equipment as required. See Section: 8. May form explosive mixture with air particularly in enclosed spaces. Take precautionary measures against static discharges. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid contact with moisture.

Conditions for safe storage, including any incompatibilities

Ground/bond container and receiving equipment. 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 other ignition sources. No smoking. May form explosive mixture with air particularly in enclosed spaces. Keep away from direct sunlight.

Storage temperature

Ambient. Keep at temperature not exceeding (℃): 27

Incompatible materials Keep away from: Oxidizing agents. Contact with water or humid air will form

methanol.

Specific end use(s) Coatings and paints, thinners, paint removers.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational Exposure Limits

SUBSTANCE	CAS No.	ACGIH® TLV® (ppm)		OSHA PEL (ppm)		Note
	CAS NO.	TWA	STEL	TWA	STEL	NOTE
Xylene	1330-20-7	100	-	150	-	A4

Source: ACGIH: American Conference of Governmental Industrial Hygiene. TLV: Threshold Limit Value (ACGIH) PEL (OSHA)

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.

Alberta: Occupational Health And Safety Code, 2009; Quebec: Health and Safety Work Act, 2016

SUBSTANCE	CAS No.	8-hour Occupational Exposure Limits		15-minute or ceiling (c) Occupational Exposure Limits		Note	
		ppm	mg/m³	f/cc	STEL (ppm)	STEL (mg/m³)	
Xylene	1330-20-7	100	434	-	150	651	Alberta
Aylerie	1330-20-7	100	434	-	150	651	OEL

Source: Alberta: Occupational Health And Safety Code, 2009

OEL: Quebec Work Health and Safety Regulations, Health and Safety Work Act, (Chapter S - 2.1, a. 223)

British Columbia: Occupational Health and Safety Guidelines, 2015; Northwest Territories: Occupational Health and Safety Regulations, 2012; Yukon Territory: Occupational Health and Safety Act, 1986

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m³)	STEL (ppm)	STEL (mg/m³)	Note
Xylene	1330-20-7	100	-	150	-	WEL
		100	-	150	-	NW
		100	435	150	650	YK

Source: WEL: Occupational Health and Safety Guidelines Part 5: Chemical Agents and Biological Agents (British Columbia)

NW: WSCC, Occupational Health and Safety Regulations, Northwest Territories Volume 3

Yukon Territory (YK): Occupational Health and Safety Act. O.I.C. 1986/164 Occupational Health Regulations.

Ontario: Occupational Health and Safety Act, 1990; Saskatchewan: Occupational Health and Safety Regulations, 1996.

SUBSTANCE CAS No.	Time Weighted Average (TWA)	STEL (ppm)	Note
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Xvlene	1330-20-7	100	150	WEL
Aylerie	1330-20-7	100	150	SK

Source: WEL: Occupational Health and Safety Act, R.R.O. 1990, Regulation 833, CONTROL OF EXPOSURE TO BIOLOGICAL OR CHEMICAL AGENTS (Ontario)

Saskatchewan (SK): Occupational Health and Safety Act, 1993. O-1.1 REG 1 Occupational Health and Safety Regulations, 1996.

Biological limit value

SUBSTANCE	CAS No.	Biological exposure determinant factors	Biological Exposure Indices	Sampling Time	Note
Xylene	1330-20-7	Methylhippuric acids: Urine	1.5 mg/g Creatinine	End of Shift	•

Source: 2015 ACGIH Biological Exposure Indicies (BEIs)

Exposure controls

Appropriate engineering controls

Ensure adequate ventilation or use appropriate containment. 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. Contaminated clothing should be laundered 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



Hand protection:

Wear impervious gloves. Gloves should be changed regularly to avoid permeation problems. Breakthrough time of the glove material: refer to the information provided by the gloves' producer.

Recommended: Neoprene

Body protection:

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

Respiratory protection



Wear suitable respiratory protective equipment if exposure to levels above the occupational exposure limit is likely. In case of inadequate ventilation wear respiratory protection. Open system(s): Wear suitable respiratory protective equipment. A self contained breathing apparatus may be appropriate.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance

Odour

Odour threshold

рΗ

Melting point/freezing point

Initial boiling point and boiling range

Flash point

Evaporation rate (Water = 1) Flammability (solid, gas)

Upper/lower flammability or explosive limits

Milky white / Transparent Liquid.

Naphthalene odour.

Not available.

Not established.

Not available.

107℃

>23℃

0.6 (BuAc = 1)

Not applicable - Liquid

Flammable Limits (Lower) (%v/v): 0.9 Flammable Limits (Upper) (%v/v): 6.0

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25 (mmHg @ 20℃) Vapour pressure Vapour density 3.7 (Air = 1)Relative density 0.85 (Water = 1)

Solubility(ies) The substance is essentially insoluble in water.

Partition coefficient: n-octanol/water Not available. Auto-ignition temperature Not available. **Decomposition Temperature** Not available. Viscosity Not available. Explosive properties Not explosive. Oxidising properties Not oxidising.

Other information Volatile Organic Compound Content (%): 300 g/L

SECTION 10: STABILITY AND REACTIVITY

Reactivity Stable under normal conditions. **Chemical stability** Stable under normal conditions.

Possibility of hazardous reactions Flammable liquid and vapour. Contact with water or humid air will form

methanol.

Conditions to avoid Keep away from heat, hot surfaces, sparks, open flames and other ignition

sources. No smoking.

Incompatible materials Keep away from: Oxidizing agents. Avoid contact with moisture.

Hazardous decomposition product(s) May decompose in a fire giving off toxic fumes. Silicon Dioxide, Silicon Oxide,

Formaldehyde, Carbon oxides and traces of incompletely burned carbon

compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Xylene

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.

Acute toxicity - Inhalation Based upon the available data, the classification criteria are not met.

Acute Toxicity Estimate Mixture Calculation: Estimated LC50 >20.0 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

Skin corrosion/irritation Skin corrosion/irritation, Category 2: Causes skin irritation.

Xylene Skin corrosion/irritation, Category 2

Read across (chevron paraxylene). Slightly irritating to skin. (rat) (EU Method

B.4) (Chatteriee, 2005).

Solvent naphtha (petroleum), light aliph. Skin corrosion/irritation, Category 2

Read across (unleaded gasoline). Irritating to skin. (rabbit) (OECD 404)

Serious eye damage/irritation Eye Irritation, Category 2: Causes serious eye irritation. **Xylene**

Eye Irritation, Category 2 Harmonised Classification

Read across. Slightly irritating to skin. (rabbit) (Unnamed, 1983) 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.

IARC Classification: Group 3. Not classifiable as to its carcinogenicity to

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

STOT - single exposure Specific target organ toxicity — single exposure, Category 3: May cause

respiratory irritation. May cause drowsiness or dizziness.

Xylene Specific target organ toxicity — single exposure, Category 3

No data

Solvent naphtha (petroleum), light aliph. Specific target organ toxicity — single exposure, Category 3

LD50 (oral,rat) mg/kg: >5000. May cause narcosis. (OECD 401)

STOT - repeated exposure Specific target organ toxicity - repeated exposure, Category 2: May cause

damage to organs through prolonged or repeated exposure.

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Xylene



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Xylene Specific target organ toxicity — repeated exposure, Category 2

Oral: NOAEL 250 mg/kg bw/day (rat) (EU Method B.32) (Unnamed, 1986)

Inhalation: NOAEL >3515 mg/kg bw/day (Dog) (Carpenter, 1975)

Dermal: No data

Aspiration hazard Aspiration hazard, Category 1; May be fatal if swallowed and enters airways.

Aspiration hazard, Category 1

No data

Solvent naphtha (petroleum), light aliph. Aspiration hazard, Category 1

No data

Other information None known.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity Aquatic toxicity, Chronic - Category 2; Toxic to aquatic life with long lasting

effects.

Estimated Mixture LC50 > 1 to ≤ 10 mg/l. (Fish)

Xylene Aquatic toxicity, Chronic - Category 2

Acute: Read across LC50 (fish) mg/l 8.4 (96 hour) (OECD 203) (Galassi, 1988)

Chronic: NOEC (Fish) mg/l >1.3 (56 Days) (Walsh, 1977)

IMDG

Aquatic toxicity, Chronic - Category 2 Solvent naphtha (petroleum), light aliph.

> Acute: Estimated LC50 (Fathead minnow) mg/l 8.2. (US EPA 66013-75-009) Chronic: Read across (Hydrocarbon) May cause narcosis. (OECD 202)

Persistence and degradability Part of the components are biodegradable. **Bioaccumulative potential**

The product has low potential for bioaccumulation.

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

Other adverse effects None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of this material and its container as hazardous waste. Send after pre-Waste treatment methods

treatment to a appropriate hazardous waste incinerator facility according to

IATA/ICAO

legislation.

SECTION 14: TRANSPORT INFORMATION

		ADI(/NID	IIVIDG	IATAICAO
14.1	UN number	UN 1993	UN 1993	UN 1993
14.2	UN proper shipping name	FLAMMABLE LIQUID,	FLAMMABLE LIQUID,	FLAMMABLE LIQUID,
		N.O.S (Xylene)	N.O.S (Xylene)	N.O.S (Xylene)
143	Transport hazard class(es)	3	3	3

VDD/DID

Ш Ш Ш 14.4 Packing group **Environmental hazards** Not classified

14.5 Classified as a Marine Not classified Pollutant.

Special precautions for user 14.6 See Section: 2 14.7

Transport in bulk according to Annex II of Not applicable.

MARPOL73/78 and the IBC Code

SECTION 15: REGULATORY INFORMATION

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

mixture

National regulations

CEPA, Domestic Substances List Dimethyl Siloxane, Hydroxy-Terminated: Yes

Xylene: Yes

Trimethylated Silica: Yes

Solvent naphtha (petroleum), light aliph.: Yes

Trimethoxy(methyl)silane: Yes

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CEPA, Priority Substances List

CEPA, List of Toxic Substances (Schedule 1)

Xylene: VOC - Item 65

CEPA, National Pollutant Release Inventory

Xylene (Mixed isomers: m-xylene, o-xylene, p-xylene): Threshold Category: Part

1A, Mass Threshold: 10 tonnes Concentration threshold: 1%; Threshold Category: Part 5, Mass Threshold: 1 tonnes of 10 tonnes Total VOC air release,

Concentration threshold: N/A.

Solvent naphtha (petroleum), light aliph.: Threshold Category: Part 5, Mass Threshold: 1 tonnes of 10 tonnes Total VOC air release, Concentration

threshold: N/A.

CEPA, Environmental Emergency Regulations Xylene: Part 1 - Substances Likely to Explode. Concentration: ≥ 1% w/w.

Xylene: Yes (VOC)

Volume (Minimum): 8000 tonnes (metric).

CEPA, VOC Specific Concentration Limit for

Architectural Coatings Regulations

CEPA, VOC Specific Concentration Limit for Automotive Xylene: Yes (VOC)

Refinishing Products Regulations

SECTION 16: OTHER INFORMATION

Non-Regional

IARC Monographs, List of Classifications Xylene: Yes - Group 3

The following sections contain revisions or new statements: Not applicable – V1.0

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References:

Existing Safety Data Sheet (SDS).

EU: Harmonised Classification(s) for Xylene (CAS No. 1330-20-7), Solvent naphtha (petroleum), light aliph. (CAS No. 64742-89-8). Existing ECHA registration(s) for Xylene (CAS No. 1330-20-7), Solvent naphtha (petroleum), light aliph. (CAS No. 64742-89-8), Trimethoxy(methyl)silane (CAS No. 1185-55-3) and the Classification and Labelling Inventory for Dimethyl Siloxane, Hydroxy-Terminated (CAS No. 70131-67-8), Trimethylated Silica (CAS No. 68909-20-6).

Literature References:

- 1. Chatterjee A, Babu R, Abaghotu E and Singh M. (2005) The effect of occlusive and unocclusive exposure to xylene and benzene on skin irritation and molecular responses in hairless rats. Arch Toxicol 79: 294-301
- Carpenter CP, Kinkead ER, Geary DJ, et al. (1975) Petroleum hydrocarbon toxicity studies: V. Animal and human response to vapors of mixed xylenes. Toxicol Appl Pharmacol 33:543-558
- 3. Galassi S, Mingazzini M, Vigano L, Cesareo D, Tosato ML. (1988) Approaches to modelling toxic responses of aquatic organisms to aromatic hydrocarbons. Ecotoxicology and Environmental Safety. 16: 158-169
- 4. Walsh, Armstrong, Bartley, Salman and Frank. (1977) Residues of emulsfied xylene in aquatic weed control and their impact on rainbow trout. Appl. Sci. Branch, Eng. Res. Cent. Denver, CO: 15p.

LEGEND

LTEL: Long Term Exposure Limit

DNEL: Derived No Effect Level

PBT: PBT: Persistent, Bioaccumulative and Toxic

STEL: Short Term Exposure Limit

PNEC: Predicted No Effect Concentration

vPvB: very Persistent and very Bioaccumulative

IARC: International Agency for Research on Cancer NTP: National Toxicology Program

OSHA = Occupational Safety and Health NIOSHTIC: National Institute for Occupational Safety and Health Technical Information

TWA: Time Weighted Average

Cente

ACGIH: American conference of Governmental

Industrial Hygiene
TLV: Threshold Limit Value (ACGIH)

Administration

Industrial Hygiene

VOC: Volatile Organic Compound EU: European Union

CEPA (Canadian Environmental Protection Act)

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BEI: Biological Exposure Indices (ACGIH)

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