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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 A
Other Means of Identification None

Recommended use and restrictions

Recommended use Coatings and paints, thinners, paint removers.

Restrictions on use Anything other than the above.

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
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 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.

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.

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.

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

Take off contaminated clothing and wash it before reuse.

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 in a well-ventilated place. Keep cool.

Store locked up.

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

Other hazards None

# **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	45 - 70	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
Ethylbenzene	100-41-4	7 - 13	Benzene,ethyl-; Ethylbenzol	Flammable Liquid, Category 2 Aspiration hazard, Category 1 Acute toxicity (Inhalation) - Category 4 Specific target organ toxicity — repeated exposure, Category 2 (Hearing deterioration) Aquatic toxicity, Chronic - Category 3

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

Inhalation

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. 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.

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Skin Contact

Eye Contact



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Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or 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.

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.

Most important symptoms and effects, both acute
and delayed

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.

Indication of any immediate medical attention and Treat symptomatically.

special treatment needed IF SWALLOWED: Do NOT induce vomiting.

#### SECTION 5: FIRE-FIGHTING MEASURES

#### Extinguishing media

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.

Special hazards arising from the substance or

mixture

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.

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. 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.

Environmental precautions

Avoid release to the environment. Do not allow to enter d

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.

Methods and material for containment and cleaning up

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

Reference to other sections See Section: 8, 13

#### SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

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.

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Do not eat, drink or smoke when using this product. Wash hands before breaks

and after work.

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.

Ambient.

Stable under normal conditions.

See Section: 1.2

Conditions for safe storage, including any incompatibilities

Storage temperature Incompatible materials Specific end use(s)

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

# **Control parameters**

#### **Occupational Exposure Limits**

SUBSTANCE	CAS No.	ACGIH® TLV® (ppm)		OSHA PEL (ppm)		Note
SOBSTANCE	CAS NO.	TWA	STEL	TWA	STEL	Note
Xylene	1330-20-7	100	-	150	-	A4
Ethylbenzene	100-41-4	20	-			A3

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

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.

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 L		e Limits	15-minute or ceiling (c) Occupational Exposure Limits Limits		Note
		ppm	mg/m³	f/cc	STEL (ppm)	STEL (mg/m³)	
Xylene	1330-20-7	100	434	-	150	651	Alberta
Aylerie		100	434	-	150	651	OEL
Ethylbenzene	100-41-4	100	434	1	125	543	Alberta
		100	434	ı	125	543	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
Ethylbenzene	100-41-4	20	-	-	-	WEL
		100	-	125	-	NW, Schedule R

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.

Schedule R: Advice on Additional Personal Protection (APP)

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

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

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Ethylbenzene	100-41-4	100	125	WEL
Luiyiberizerie	100-41-4	100	125	SK, T20

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.

T20: Applicable Laws: Section 306 and 311.

#### **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	-
Ethylbenzene	100-41-4	Total (Mandelic acid and Phenylglyoxylic acid): Urine	0.15 mg/g Creatinine	End of Shift: end of workweek	Ns

Source: 2015 ACGIH Biological Exposure Indicies (BEIs)

Ns - Nonspecific

**Exposure controls** 

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 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 Amber liquid

Odour Benzene-like aromatic odour

Odour threshold Not established. pH Not available. Melting point/freezing point Not available.

Initial boiling point and boiling range 137℃ Flash point 26℃ [Closed cup]

Evaporation rate (Water = 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)

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

Vapour pressure >1.1 bar 3.6 (Air = 1)Vapour density 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. Explosive properties Amber liquid

Oxidising properties Benzene-like aromatic odour

Other information Volatile Organic Compound Content (%): 589 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. 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.

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 and polymerisation catalysts, such as

peroxy or azo compounds, strong acids, alkalis and oxidising agents.

Hazardous decomposition product(s) 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

**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 Acute toxicity (Inhalation), Category 3: Toxic if inhaled.

Acute Toxicity Estimate Mixture Calculation: Estimated LC50 19.0 mg/l. Acute toxicity (Inhalation) - Category 4 Harmonised Classification **Xylene** LC50 (rat) 6350 ppm (27571 mg/m<sup>3</sup>) (EU Method B.2) (Hine, 1970)

Ethylbenzene Acute toxicity (Inhalation) - Category 4 Harmonised Classification

No data

**Acute toxicity - Skin Contact** Acute toxicity (Dermal) - Category 4: Harmful in contact with skin.

Acute Toxicity Estimate Mixture Calculation: Estimated LC50 1896.6 mg/kg

**Xylene** Acute toxicity (Dermal) - Category 4 Harmonised Classification

Read across LD50 (rabbit) mg/kg bw/day 12126 (Unnamed, 1962)

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).

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

ACGIH: Confirmed Animal Carcinogen with Unknown Relevance to Humans Ethylbenzene

IARC Classification: Group 2B. Possibly carcinogenic to humans. Based upon the available data, the classification criteria are not met.

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Reproductive toxicity

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

respiratory irritation.

Specific target organ toxicity — single exposure, Category 3 **Xylene** 

No data

STOT - repeated exposure Specific target organ toxicity — repeated exposure, Category 3; May cause

damage to organs through prolonged or repeated exposure.

**Xylene** Specific target organ toxicity — repeated exposure, Category 2

Oral: NOAEL 750 mg/kg bw/day (rat) (EU Method B.32) (Unnamed, 1986)

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

Dermal: No data

Ethylbenzene Specific target organ toxicity — repeated exposure, Category 2

Oral: NOAEL 75 mg/kg bw/day (rat) (OECD 407) (Unnamed, 2003) Inhalation: NOAEC 75 ppm (rat) (OECD 453) (Unnamed, 1999)

Dermal: No data

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

**Xylene** Aspiration hazard, Category 1

No data

Ethylbenzene Aspiration hazard, Category 1 Harmonised Classification

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)

Aquatic toxicity, Chronic - Category 3 Ethylbenzene

Acute: LC50 (fish) mg/l 7 (48 hour) (ASTM Guideline, 1980) (Unnamed, 1987)

Chronic: No data

Persistence and degradability Part of the components are biodegradable.

Bioaccumulative potential

No data.

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**

Waste treatment methods Do not release undiluted and unneutralised to the sewer. Dispose of contents in

accordance with local, state or national legislation. Dispose of this material and its container as hazardous waste. Containers of this material may be hazardous

when empty since they retain product residue.

# SECTION 14: TRANSPORT INFORMATION

Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code

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		ADR/RID	IMDG	IATA/ICAO
14.1	UN number	UN 1263	UN 1263	UN 1263
14.2	UN proper shipping name	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL
14.3	Transport hazard class(es)	3	3	3
14.4	Packing group	III	III	III

**Environmental hazards** 14.5 Not classified Classified as a Marine

Not classified

Pollutant. 14.6 Special precautions for user See Section: 2

Not applicable.

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# **SECTION 15: REGULATORY INFORMATION**

Safety, health and environmental

regulations/legislation specific for the substance or

mixture

**National regulations** 

CEPA, Domestic Substances List Xylene: Yes Ethylbenzene: Yes CEPA, Priority Substances List Xylene: PSL 1

CEPA, List of Toxic Substances (Schedule 1) Xylene: VOC - Item 65

Ethylbenzene: 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.

Ethylbenzene: Threshold Category: Part 1A, Mass Threshold: 10 tonnes MPO

Concentration threshold: 1%

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

Xylene: Yes (VOC)

Volume (Minimum): 8000 tonnes (metric).

Ethylbenzene: Part 1 - Substances Likely to Explode. Concentration: ≥ 1% w/w.

Volume (Minimum): 7000 tonnes (metric).

CEPA, VOC Specific Concentration Limit for

**Architectural Coatings Regulations** Ethylbenzene: Yes (VOC) Xylene: Yes (VOC)

CEPA, VOC Specific Concentration Limit for Automotive

Refinishing Products Regulations Ethylbenzene: Yes (VOC)

Non-Regional

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

Ethylbenzene: Yes - Group 2B

#### SECTION 16: OTHER INFORMATION

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), Ethylbenzene (CAS No. 100-41-4). Existing ECHA registration(s) for Xylene (CAS No. 1330-20-7), Ethylbenzene (CAS No. 100-41-4).

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- 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
- 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 STEL: Short Term Exposure Limit DNEL: Derived No Effect Level PNEC: Predicted No Effect Concentration PBT: PBT: Persistent, Bioaccumulative and Toxic 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

Administration Center

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ACGIH: American conference of Governmental

Industrial Hygiene

TLV: Threshold Limit Value (ACGIH)

CEPA (Canadian Environmental Protection Act)

VOC: Volatile Organic Compound

BEI: Biological Exposure Indices (ACGIH)

TWA: Time Weighted Average

EU: European Union

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