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SAFETY DATA SHEET

Valvoline™ VR1 Racing™ SAE 20W-50 Synthetic Racing Oil

Version: 1.7 Revision Date: 04/20/2020 Print Date: 05/07/2021

29 CFR 1910.1200 (OSHA HazCom 2012)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Trade name : Valvoline™ VR1 Racing™ SAE 20W-50

Synthetic Racing Oil

Product code : 679082

Details of the supplier of the safety data sheet

Valvoline LLC 100 Valvoline Way Lexington, KY 40509

United States of America (USA) 1-800-TEAMVAL (1-800-832-6825)

SDS@valvoline.com

Emergency telephone number

1-800-VALVOLINE (1-800-825-8654)

Regulatory Information Number

1-800-TEAMVAL (1-800-832-6825)

Product Information

1-800-TEAMVAL (1-800-832-6825)

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Eye irritation : Category 2A

GHS label elements

Hazard pictograms



Signal Word : Warning

Hazard Statements : Causes serious eye irritation.

Precautionary Statements : **Prevention**:

Wear eye protection/ face protection. Wash skin thoroughly after handling.

Response:

If eye irritation persists: 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.

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Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

<u> </u>	0.00.11	6 1 161 11	
Chemical name	CAS-No.	Classification	Concentration (%)
Lubricating Oils (Petroleum), C20-	72623-87-1	Asp. Tox. 1; H304	>=50.00 - < 60.00
50, Hydrotreated Neutral Oil-			
Based			
DISTILLATES (PETROLEUM),	64742-54-7	Not a hazardous	>=5.00 - < 10.00
HYDROTREATED HEAVY		substance or mixture.	
PARAFFINIC			
Zinc O,O,O',O'-tetrakis(1,3-	2215-35-2	Skin Irrit. 2; H315	>=1.50 - < 5.00
dimethylbutyl)			
bis(phosphorodithioate		Eye Dam. 1; H318	

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice : Do not leave the victim unattended.

Show this safety data sheet to the doctor in attendance.

Move out of dangerous area.

If inhaled If breathed in, move person into fresh air.

If unconscious, place in recovery position and seek medical

advice.

If symptoms persist, call a physician.

: Wash contaminated clothing before re-use. In case of skin contact

If on skin, rinse well with water.

Remove contaminated clothing. If irritation develops, get

medical attention.

In case of eye contact : Protect unharmed eye.

Remove contact lenses.

Immediately flush eye(s) with plenty of water.

If swallowed : Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician.

Most important symptoms and effects, both acute and : No symptoms known or expected. Causes serious eye irritation.

delayed

Notes to physician : No hazards which require special first aid measures.

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SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

Water spray

Foam

Carbon dioxide (CO2)

Dry chemical

Unsuitable extinguishing

media

Specific hazards during

firefighting

: High volume water jet

: Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion

products

: carbon dioxide and carbon monoxide

Specific extinguishing

methods

Product is compatible with standard fire-fighting agents.

Further information

Special protective equipment

for firefighters

: Standard procedure for chemical fires.

by the assessment of fire assessment if a sector and the sector.

: In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

: Persons not wearing protective equipment should be excluded

from area of spill until clean-up has been completed.

Use personal protective equipment.

Environmental precautions : Prevent further leakage or spillage if safe to do so.

Methods and materials for containment and cleaning up

: Soak up with inert absorbent material (e.g. sand, silica gel,

acid binder, universal binder, sawdust).

Keep in suitable, closed containers for disposal.

Other information : Comply with all applicable federal, state, and local regulations.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Dispose of rinse water in accordance with local and national

regulations.

For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the

application area.

Avoid contact with skin and eyes. Container hazardous when empty.

Do not smoke.

Do not breathe vapours/dust.



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Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated

place.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible	Basis
Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based	72623-87-1	TWA	concentration 5 mg/m3 Mist	OSHA Z-1
Oii Daseu		TWA	5 mg/m3 Inhalable particulate matter	ACGIH
		TWA	5 mg/m3 Mist	OSHA P0
		TWA	5 mg/m3 Mist	NIOSH REL
		ST	10 mg/m3 Mist	NIOSH REL
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	64742-54-7	TWA	5 mg/m3 Mist	OSHA Z-1
		TWA	5 mg/m3 Inhalable particulate matter	ACGIH
		TWA	5 mg/m3 Mist	OSHA P0
		TWA	5 mg/m3 Mist	NIOSH REL
		ST	10 mg/m3 Mist	NIOSH REL
		PEL	5 mg/m3 particulate	CAL PEL

Engineering measures : Provide sufficient mechanical (general and/or local exhaust)

ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or

apparent adverse effects.

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally

required.

Hand protection

Remarks : The suitability for a specific workplace should be discussed

with the producers of the protective gloves.

Eye protection : Wear chemical splash goggles when there is the potential for

exposure of the eyes to liquid, vapor or mist.



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Skin and body protection Wear resistant gloves (consult your safety equipment

supplier).

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Safety shoes

Impervious clothing Wear as appropriate:

When using do not smoke. Hygiene measures

When using do not eat or drink.

Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance liquid

Odour No data available Odour Threshold No data available

pН No data available

Melting point/freezing point No data available

: 626 °F / 330 °C Boiling point/boiling range

(1,013.333333 hPa)

Calculated Phase Transition Liquid/Gas

: 394 - 480 °F / 201 - 249 °C Flash point

Method: Cleveland open cup

Evaporation rate No data available

Flammability (solid, gas) No data available

Self-ignition No data available

Upper explosion limit / Upper

flammability limit

No data available

Lower explosion limit / Lower : No data available

flammability limit

Vapour pressure : 1.3333333 hPa (68 °F / 20 °C)

Calculated Vapor Pressure

Relative vapour density No data available

0.854 Relative density

Density 0.861 g/cm3

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Solubility(ies)

Water solubility : No data available

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

No data available

Decomposition temperature

No data available

Viscosity

Viscosity, dynamic : No data available

Viscosity, kinematic : 147 mm2/s (104 °F / 40 °C)

Oxidizing properties : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed. Chemical stability : Stable under recommended storage conditions. Possibility of hazardous : Product will not undergo hazardous polymerization.

reactions

Conditions to avoid : None known.

Incompatible materials : Strong oxidizing agents

Chromic acid

Acids

Hazardous decomposition

products No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
Skin contact
Eye Contact
Ingestion
Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg

Method: Calculation method

Components:

Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

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Acute inhalation toxicity : LC50 (Rat): > 5.58 mg/l

Exposure time: 4 h
Test atmosphere: dust/mist

Assessment: Not classified as acutely toxic by inhalation

under GHS.

Remarks: No mortality observed at this dose.

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

Remarks: No mortality observed at this dose.

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Acute oral toxicity : LD50 (Rat): > 15 g/kg

Acute dermal toxicity : LD50 (Rabbit): > 5 g/kg

Zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate:

Acute oral toxicity : LD50 (Rat): 2,230 mg/kg

GLP: no

Acute inhalation toxicity : LC50 (Rat): > 2.3 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: Not classified as acutely toxic by inhalation

under GHS.

Remarks: Information given is based on data obtained from

similar substances.

Acute dermal toxicity : LD50 (Rabbit): > 3,160 mg/kg

Method: OECD Test Guideline 402

Assessment: Not classified as acutely toxic by dermal

absorption under GHS.

Skin corrosion/irritation

Not classified based on available information.

Product:

Remarks : May cause skin irritation in susceptible persons.

Components:

Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:

Species : Rabbit

Result : No skin irritation

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Assessment : Slight, transient irritation
Result : Slight, transient irritation

Zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate:

Species : Rabbit

Method : OECD Test Guideline 404

Result : Irritating to skin.

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GLP : yes

Serious eye damage/eye irritation

Causes serious eye irritation.

Product:

Remarks : Causes serious eye irritation.

Vapours may cause irritation to the eyes, respiratory system

and the skin.

Components:

Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:

Species : Rabbit

Result : No eye irritation

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Result : No eye irritation Assessment : No eye irritation

Zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate:

Result : Corrosive

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:

Test Type : Buehler Test Species : Guinea pig

Assessment : Does not cause skin sensitisation.

Zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate:

Species : Guinea pig

Assessment : Did not cause sensitisation on laboratory animals.

Method : OECD Test Guideline 406

Result : Did not cause sensitisation on laboratory animals.

GLP : yes

Germ cell mutagenicity

Not classified based on available information.

Components:

Zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate:

Genotoxicity in vitro : Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Result: negative

Carcinogenicity

Not classified based on available information.



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Components:

Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:

Carcinogenicity -: Classified based on DMSO extract content < 3% (Regulation

Assessment (EC) 1272/2008, Annex VI, Part 3, Note L)

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Carcinogenicity -: Classified based on DMSO extract content < 3% (Regulation

(EC) 1272/2008, Annex VI, Part 3, Note L) Assessment

IARC No component of this product present at levels greater than or equal to 0.1% is

identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is

on OSHA's list of regulated carcinogens.

NTP No component of this product present at levels greater than or equal to 0.1% is

identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Components:

Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:

May be fatal if swallowed and enters airways.

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

No aspiration toxicity classification

Further information

Product:

Remarks No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Ecotoxicology Assessment

Short-term (acute) aquatic : Not classified based on available information.

hazard

Long-term (chronic) aquatic : Not classified based on available information.

hazard

Components:

Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:



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Toxicity to fish : LL50 (Pimephales promelas (fathead minnow)): > 100 mg/l

> Exposure time: 96 h Test Type: static test Test substance: WAF

Method: OECD Test Guideline 203

Remarks: No toxicity at the limit of solubility

Toxicity to daphnia and other

aquatic invertebrates

: EL50 (Daphnia magna (Water flea)): > 10,000 mg/l

Exposure time: 48 h Test Type: static test Test substance: WAF

Method: OECD Test Guideline 202

Toxicity to algae : NOEL (Pseudokirchneriella subcapitata (green algae)): >=

100 mg/l

End point: Growth inhibition Exposure time: 72 h Test Type: static test Test substance: WAF

Method: OECD Test Guideline 201

Toxicity to fish (Chronic

toxicity)

: NOELR (Oncorhynchus mykiss (rainbow trout)): >= 1,000 mg/l

Exposure time: 14 d

Toxicity to daphnia and other

aquatic invertebrates (Chronic toxicity)

: NOEL (Daphnia (water flea)): 10 mg/l

Exposure time: 21 d Test substance: WAF

Method: OECD Test Guideline 211

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Toxicity to fish

: LL50 (Fish): > 100 mg/l Exposure time: 96 h

aquatic invertebrates

Toxicity to daphnia and other : EL50 (Aquatic invertebrates): > 10,000 mg/l

Exposure time: 48 h

Toxicity to algae : EL50 (Algae, algal mat (Algae)): > 100 mg/l

Exposure time: 72 h

Toxicity to fish (Chronic

toxicity)

: NOEC (Fish): 10 mg/l

Toxicity to daphnia and other

aquatic invertebrates

(Chronic toxicity)

Ecotoxicology Assessment

Short-term (acute) aquatic

hazard

: Not classified based on available information.

Long-term (chronic) aquatic

: Not classified based on available information.

: NOEC (Aquatic invertebrates): 10 mg/l

hazard

Zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate:



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Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): 4.5 mg/l

Exposure time: 96 h
Test Type: semi-static test

Method: OECD Test Guideline 203

Remarks: Information given is based on data obtained from

similar substances.

Toxicity to daphnia and other

aquatic invertebrates

: EL50 (Daphnia magna (Water flea)): 23 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

GLP: yes

Toxicity to algae : NOEL (Desmodesmus subspicatus (green algae)): 10 mg/l

End point: Growth inhibition

Exposure time: 72 h
Test Type: static test
Test substance: WAF

Method: OECD Test Guideline 201

Remarks: Information given is based on data obtained from

similar substances.

Toxicity to daphnia and other

aquatic invertebrates (Chronic toxicity)

: NOEC (Daphnia magna (Water flea)): 0.4 mg/l

Exposure time: 21 d Test substance: WAF

Method: OECD Test Guideline 211

Remarks: Information given is based on data obtained from

similar substances.

Persistence and degradability

Components:

Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based: Biodegradability : Result: Not readily biodegradable.

Biodegradation: 2 - 4 % Exposure time: 28 d

Method: OECD Test Guideline 301B

Zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate:

Biodegradability : Result: Not readily biodegradable.

Biodegradation: 1.5 % Exposure time: 28 d

Method: OECD Test Guideline 301B

Remarks: Information given is based on data obtained from

similar substances.

No data available

Bioaccumulative potential

Components:

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Partition coefficient: n- : log Pow: Expected > 7

octanol/water

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No data available
Mobility in soil
Components:
No data available
Other adverse effects

No data available

Product:

Remarks

Regulation 40 CFR Protection of Environment; Part 82 Protection of

Stratospheric Ozone - CAA Section 602 Class I Substances This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act

Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological

information Components:

: No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

General advice : Dispose of in accordance with all applicable local, state and

federal regulations.

Send to a licensed waste management company. Do not contaminate ponds, waterways or ditches with

chemical or used container.

Do not dispose of waste into sewer.

Contaminated packaging : Do not re-use empty containers.

Empty containers should be taken to an approved waste

handling site for recycling or disposal.

Dispose of as unused product. Empty remaining contents.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

49 CFR

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Not regulated as a dangerous good

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

The components of this product are reported in the following inventories:

DSL : All components of this product are on the Canadian DSL

AICS : On the inventory, or in compliance with the inventory

ENCS : Not in compliance with the inventory

KECI : On the inventory, or in compliance with the inventory

PICCS : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

TCSI : Not in compliance with the inventory

TSCA : On TSCA Inventory

TSCA list

No substances are subject to TSCA 12(b) export notification requirements.

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

SECTION 16. OTHER INFORMATION

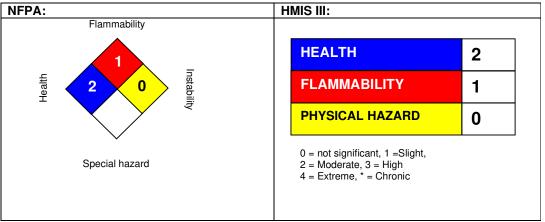
Further information

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Internal information: 000000135961



NFPA Flammable and Combustible Liquids Classification

Combustible Liquid Class IIIB

Full text of H-Statements

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H318 Causes serious eye damage.

Sources of key data used to compile the Safety Data Sheet Valvoline internal data including own and sponsored test reports The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Valvoline's Environmental Health and Safety Department (1-800-VALVOLINE).

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet:

ACGIH: American Conference of Industrial Hygienists

BEI : Biological Exposure Index

CAS: Chemical Abstracts Service (Division of the American Chemical Society).

CMR: Carcinogenic, Mutagenic or Toxic for Reproduction

FG: Food grade

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.



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H-statement : Hazard Statement

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO: International Civil Aviation Organization

ICAO-TI (ICAO): Technical Instructions by the "International Civil Aviation Organization"

IMDG: International Maritime Code for Dangerous Goods ISO: International Organization for Standardization

logPow: octanol-water partition coefficient

LCxx: Lethal Concentration, for xx percent of test population

LDxx: Lethal Dose, for xx percent of test population. ICxx: Inhibitory Concentration for xx of a substance

Ecxx : Effective Concentration of xx N.O.S.: Not Otherwise Specified

OECD: Organization for Economic Co-operation and Development

OEL : Occupational Exposure Limit P-Statement : Precautionary Statement PBT : Persistent , Bioaccumulative and Toxic

PPE : Personal Protective Equipment STEL : Short-term exposure limit STOT : Specific Target Organ Toxicity

TLV: Threshold Limit Value TWA: Time-weighted average

vPvB: Very Persistent and Very Bioaccumulative

WEL: Workplace Exposure Level

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act

DOT: Department of Transportation

FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act HMIRC: Hazardous Materials Information Review Commission

HMIS: Hazardous Materials Identification System NFPA: National Fire Protection Association

NIOSH: National Institute for Occupational Safety and Health OSHA: Occupational Safety and Health Administration PMRA: Health Canada Pest Management Regulatory Agency

RTK : Right to Know

WHMIS: Workplace Hazardous Materials Information System