

ZEREX™ ASIAN VEHICLE RED 50/50 Antifreeze Coolant

Revision Date: 11/04/2021 Version: 1.6 Print Date: 03/29/2022

29 CFR 1910.1200 (OSHA HazCom 2012)

# **SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

**Product identifier** 

ZEREX™ ASIAN VEHICLE RED 50/50 Trade name

Antifreeze Coolant

Product code 675130

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** 

Acute toxicity (Oral) : Category 4

Specific target organ toxicity

- repeated exposure (Oral)

: Category 2 (Kidney, Liver)

**GHS** label elements

Hazard pictograms





Signal Word : Warning

: Harmful if swallowed. **Hazard Statements** 

May cause damage to organs (Kidney, Liver) through

prolonged or repeated exposure if swallowed.

**Precautionary Statements** : Prevention:

> Do not breathe mist or vapors. Wash skin thoroughly after handling.



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Do not eat, drink or smoke when using this product.

Response:

IF SWALLOWED: Call a POISON CENTER/ doctor if you feel

unwell. Rinse mouth.

Get medical advice/ attention if you feel unwell.

Disposal:

Dispose of contents/ container to an approved waste disposal

plant.

#### Other hazards

None known.

#### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Hazardous components** 

Chemical name	CAS-No.	Classification	Concentration (%)
ETHYLENE GLYCOL	107-21-1	Acute Tox. 4; H302	>=40.00 - < 50.00
		STOT RE 2; H373	
SODIUM BENZOATE	532-32-1	Eye Irrit. 2A; H319	>=1.50 - < 5.00
DIPOTASSIUM PHOSPHATE	7758-11-4	Acute Tox. 3; H311	>=0.50 - < 1.00

Actual concentration is withheld as a trade secret

# **SECTION 4. FIRST AID MEASURES**

General advice : Move out of dangerous area.

Show this safety data sheet to the doctor in attendance.

Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical

advice.

If symptoms persist, call a physician.

In case of eye contact : Flush eyes with water as a precaution.

Remove contact lenses. Protect unharmed eye.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.



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If swallowed : Induce vomiting immediately and call a physician.

Keep respiratory tract clear.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician. Take victim immediately to hospital.

Most important symptoms and effects, both acute and

delayed

: Harmful if swallowed.

May cause damage to organs through prolonged or repeated

exposure if swallowed.

No symptoms known or expected.

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

Treat symptomatically.

## **SECTION 5. FIREFIGHTING MEASURES**

Unsuitable extinguishing

media

: High volume water jet

Hazardous combustion

products

: No hazardous combustion products are known

Specific extinguishing

methods

:

Further information : Standard procedure for chemical fires.

Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

Special protective equipment

for firefighters

: Wear self-contained breathing apparatus for firefighting if

necessary.

# **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Environmental precautions : Prevent product from entering drains.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform

respective authorities.

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.

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## **SECTION 7. HANDLING AND STORAGE**

Advice on safe handling : Do not breathe vapours/dust.

For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the

application area.

Dispose of rinse water in accordance with local and national

regulations.

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

place.

Electrical installations / working materials must comply with

the technological safety standards.

## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
ETHYLENE GLYCOL	107-21-1	TWA	25 ppm Vapour	ACGIH
		STEL	50 ppm Vapour	ACGIH
		STEL	10 mg/m3 Inhalable fraction, Aerosol only	ACGIH
		С	50 ppm 125 mg/m3	OSHA P0
		С	40 ppm 100 mg/m3 Vapour	CAL PEL

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 : Eye wash bottle with pure water

Tightly fitting safety goggles

Skin and body protection : Impervious clothing

Choose body protection according to the amount and

concentration of the dangerous substance at the work place.



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Hygiene measures : When using do not eat or drink.

When using do not smoke.

Wash hands before breaks and at the end of workday.

# **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : liquid

Colour : pink

Odour : No data available

Odour Threshold : No data available

pH : No data available

Melting point/freezing point : -34 °F / -37 °C

Boiling point/boiling range : 212 °F / 100 °C

(1,013.333333 hPa)

Calculated Phase Transition Liquid/Gas

Flash point :  $> 250 \, ^{\circ}\text{F} \, / > 121 \, ^{\circ}\text{C}$ 

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Self-ignition : No data available

Upper explosion limit / Upper

flammability limit

15.3 %(V)

GLP: Calculated Explosive Limit

Lower explosion limit / Lower :

flammability limit

3.2 %(V)

GLP: Calculated Explosive Limit

Vapour pressure : 23.3333333 hPa (68 °F / 20 °C)

Calculated Vapor Pressure

Relative vapour density : No data available

Relative density : No data available

Density : 1.0827 g/cm3 (60.1 °F / 15.6 °C)

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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 : No data available

Oxidizing properties : No data available

# **SECTION 10. STABILITY AND REACTIVITY**

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : No decomposition if stored and applied as directed.

Possibility of hazardous

reactions

: No decomposition if stored and applied as directed.

Conditions to avoid : No data available

Incompatible materials : Aldehydes

Alkali metals

Alkaline earth metals

iron salts Strong acids strong alkalis

Strong oxidizing agents Sulphur compounds

Hazardous decomposition

products No hazardous decomposition products are known.

# **SECTION 11. TOXICOLOGICAL INFORMATION**

**Acute toxicity** 

Harmful if swallowed.

**Product:** 

Acute oral toxicity : Acute toxicity estimate: 1,014 mg/kg



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Method: Calculation method

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

Method: Calculation method

Components:

**ETHYLENE GLYCOL:** 

Acute oral toxicity : LD0 (Human): estimated 1.56 g/kg

Assessment: The component/mixture is moderately toxic after

single ingestion.

LC50 (Rat): 10.9 mg/l Acute inhalation toxicity

Exposure time: 1 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute

inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): 9,530 mg/kg

Acute toxicity (other routes of : LD50 (Rat): 5,010 mg/kg

administration)

Application Route: Intraperitoneal

LD50 (Rat): 3,260 mg/kg Application Route: Intravenous

**SODIUM BENZOATE:** 

: LD50 (Rat, male and female): 3,450 mg/kg Acute oral toxicity

: LC50 (Rat): > 12.2 mg/l Acute inhalation toxicity

Exposure time: 4 h

Test atmosphere: dust/mist

Remarks: The toxicological data has been taken from

products of similar composition.

**DIPOTASSIUM PHOSPHATE:** 

Acute oral toxicity LD50 (Rat): > 500 mg/kg

> LD50 (Rat, female): > 2,000 mg/kg Method: OECD Test Guideline 420

Assessment: The substance or mixture has no acute oral

toxicity

LD50 (Rabbit): > 300 mg/kg Acute dermal toxicity

> LD50 (Rabbit): > 5,000 mg/kg Method: OECD Test Guideline 402

Skin corrosion/irritation

Not classified based on available information.

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**Components:** 

**ETHYLENE GLYCOL:** 

Species : Rabbit

Result : No skin irritation

**SODIUM BENZOATE:** 

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

**DIPOTASSIUM PHOSPHATE:** 

Species : Rabbit

Result : Slight, transient irritation

Serious eye damage/eye irritation

Not classified based on available information.

**Components:** 

**ETHYLENE GLYCOL:** 

Result : Slight, transient irritation

**SODIUM BENZOATE:** 

Species : Rabbit

Result : Irritating to eyes.

Method : OECD Test Guideline 405

**DIPOTASSIUM PHOSPHATE:** 

Species : Rabbit

Result : Slight, transient irritation

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

**ETHYLENE GLYCOL**:

Test Type : Maximisation Test

Species : Guinea pig

Assessment : Does not cause skin sensitisation.

**DIPOTASSIUM PHOSPHATE:** 

Test Type : Local lymph node assay

Species : Mouse

Assessment : Did not cause sensitisation on laboratory animals.

Method : OECD Test Guideline 429

Remarks : The toxicological data has been taken from products of similar

composition.

Germ cell mutagenicity

Not classified based on available information.



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Components:

ETHYLENE GLYCOL:

Genotoxicity in vitro : Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Result: negative

**DIPOTASSIUM PHOSPHATE:** 

Genotoxicity in vitro : Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Remarks: The toxicological data has been taken from

products of similar composition.

Carcinogenicity

Not classified based on available information.

IARC Group 2A: Probably carcinogenic to humans

SODIUM NITRATE 7631-99-4

(nitrate (ingested) under conditions that result in endogenous nitrosation)

**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

May cause damage to organs (Kidney, Liver) through prolonged or repeated exposure if swallowed.

Components:

**ETHYLENE GLYCOL:** 

Exposure routes : Ingestion
Target Organs : Kidney, Liver

Assessment : May cause damage to organs through prolonged or repeated

exposure.

**Aspiration toxicity** 

Not classified based on available information.

**Experience with human exposure** 

Components:

**ETHYLENE GLYCOL:** 

Ingestion : Target Organs: Kidney



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**Further information** 

Product:

Remarks : No data available

#### **SECTION 12. ECOLOGICAL INFORMATION**

Ecotoxicity Product:

Ecotoxicology Assessment

Short-term (acute) aquatic

hazard

: Not classified based on available information.

Long-term (chronic) aquatic

hazard

: Not classified based on available information.

**Components:** 

ETHYLENE GLYCOL:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 27,540 mg/l

Exposure time: 96 h Test Type: static test

LC50 (Pimephales promelas (fathead minnow)): 8,050 mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

: LC50 (Daphnia magna (Water flea)): > 10,000 mg/l

Exposure time: 48 h Test Type: static test

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 6,500 -

13,000 mg/l

End point: Growth inhibition Exposure time: 7 Days

Toxicity to fish (Chronic

toxicity)

: NOEC (Pimephales promelas (fathead minnow)): 32,000 mg/l

Exposure time: 7 d

Toxicity to daphnia and other

aquatic invertebrates (Chronic toxicity)

: NOEC (Daphnia magna (Water flea)): 24,000 mg/l

Exposure time: 7 d

**Ecotoxicology Assessment** 

Short-term (acute) aquatic

hazard

: Not classified based on available information.

Long-term (chronic) aquatic

hazard

: Not classified based on available information.

SODIUM BENZOATE:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l



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Exposure time: 96 h Test Type: static test Method: Static Remarks: Mortality

Toxicity to daphnia and other

aquatic invertebrates

: LC50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 96 h Test Type: static test Method: Static Remarks: Mortality

**DIPOTASSIUM PHOSPHATE:** 

Toxicity to fish

: LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l

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

Method: OECD Test Guideline 203

Remarks: The toxicological data has been taken from

products of similar composition.

Toxicity to daphnia and other

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h Test Type: static test

Method: OECD Test Guideline 202

Remarks: The toxicological data has been taken from

products of similar composition.

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l

End point: Growth inhibition

Exposure time: 72 h Test Type: static test

Method: OECD Test Guideline 201

Remarks: The toxicological data has been taken from

products of similar composition.

NOEC (Desmodesmus subspicatus (green algae)): > 100 mg/l

End point: Growth inhibition

Exposure time: 72 h Test Type: static test

Method: OECD Test Guideline 201

Remarks: The toxicological data has been taken from

products of similar composition.

Persistence and degradability

**Components:** 

ETHYLENE GLYCOL:

Biodegradability : Result: Readily biodegradable.

Biodegradation: 90 - 100 %

Exposure time: 10 d

Method: OECD Test Guideline 301



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SODIUM BENZOATE:

Biodegradability : Result: Readily biodegradable.

Biodegradation: 88 % Exposure time: 28 d

Method: OECD Test Guideline 301

**DIPOTASSIUM PHOSPHATE:** 

Biodegradability : Remarks: The methods for determining biodegradability are

not applicable to inorganic substances.

No data available

**Bioaccumulative potential** 

**Components:** 

ETHYLENE GLYCOL:

Bioaccumulation : Species: Crayfish (Procambarus)

Bioconcentration factor (BCF): 0.27

Exposure time: 61 d Concentration: 1000 mg/l Method: Flow through

Partition coefficient: n-

octanol/water

: log Pow: -1.36

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

: No data available

**Components:** 

## **SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods** 

General advice : Do not dispose of waste into sewer.

Do not contaminate ponds, waterways or ditches with

chemical or used container.

Send to a licensed waste management company.



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Contaminated packaging : Empty remaining contents.

Dispose of as unused product. Do not re-use empty containers.

#### **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**

#### **CFR ROAD**

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**

## **CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ	Calculated product RQ
		(lbs)	(lbs)
ETHYLENE GLYCOL	107-21-1	5000	

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

#### SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Acute toxicity (any route of exposure)

Specific target organ toxicity (single or repeated exposure)

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**SARA 313** The following components are subject to reporting levels

established by SARA Title III, Section 313:

ETHYLENE 107-21-1 >= 30 - < 50 %

**GLYCOL** 

#### 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).

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 112 (40 CFR 61):

> ETHYLENE GLYCOL 107-21-1 >= 30 - < 50 %

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).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

ETHYLENE GLYCOL 107-21-1 >= 30 - < 50 % SODIUM BENZOATE 532-32-1 >= 1 - < 5 %

## Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section

This product does not contain any priority pollutants related to the U.S. Clean Water Act

# California Prop. 65



▲ WARNING: Reproductive Harm - www.P65Warnings.ca.gov.

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

**TCSI** Not in compliance with the inventory

**TSCA** : All substances listed as active on the TSCA inventory

AIIC : Not in compliance with the inventory

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

**ENCS** Not in compliance with the inventory

ISHL : 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

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

NZIoC : Not in compliance with the inventory

TECI: Not in compliance with the inventory

#### **TSCA list**

No substances are subject to a Significant New Use Rule.

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

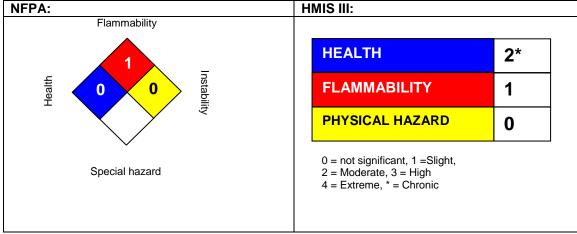
## **Inventories**

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

## **SECTION 16. OTHER INFORMATION**

# **Further information**

Internal information: 000000141647



## NFPA Flammable and Combustible Liquids Classification

Combustible Liquid Class IIIB

#### **Full text of H-Statements**

H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H319	Causes serious eye irritation.

H373 May cause damage to organs through prolonged or repeated exposure

if swallowed.

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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.

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



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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