		Page: 1
<b>SAFETY DATA SHEET</b>		Revision Date: 05/22/2017
		Print Date: 6/21/2023
		SDS Number: R0173308
Valvoline™ SAE 85W-140 HP GEAR OIL VV829		Version: 1.4

29 CFR 1910.1200 (OSHA HazCom 2012)

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

**Product identifier**

Trade name : Valvoline™ SAE 85W-140  
HP GEAR OIL


<p><b>Details of the supplier of the safety data sheet</b> Valvoline LLC 100 Valvoline Way Lexington, KY 40509 United States of America (USA) 1-800-TEAMVAL</p>	<p><b>Emergency telephone number</b> 1-800-VALVOLINE (1-800-825-8654)</p> <p><b>Regulatory Information Number</b> 1-800-TEAMVAL</p> <p><b>Product Information</b> 1-800-TEAMVAL</p>
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**SECTION 2. HAZARDS IDENTIFICATION**

**GHS Classification**

Skin sensitization : Category 1

**GHS label elements**

Hazard pictograms : 

Signal Word : Warning

Hazard Statements : May cause an allergic skin reaction.

Precautionary Statements : **Prevention:**  
Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.  
Contaminated work clothing must not be allowed out of the workplace.  
Wear protective gloves.  
**Response:**  
IF ON SKIN: Wash with plenty of soap and water.  
If skin irritation or rash occurs: Get medical advice/ attention.  
Wash contaminated clothing before reuse.  
**Disposal:**  
Dispose of contents/ container to an approved waste disposal plant.

**SAFETY DATA SHEET**

Revision Date: 05/22/2017

Print Date: 6/21/2023

SDS Number: R0173308

Valvoline™ SAE 85W-140 HP GEAR OIL

Version: 1.4

VV829

**Other hazards**

None known.

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

Substance / Mixture : Mixture

**Hazardous components**

Chemical name	CAS-No.	Classification	Concentration (%)
OLEFINSULFIDE	68937-96-2	Skin Sens. 1B; H317	2.5296
React. prod. of bis(2-methylpentan-2-yl)dithiophosphoricacid + phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)		Flam. Liq. 4; H227 Acute Tox. 4; H302 Eye Dam. 1; H318 Skin Sens. 1; H317	0.6418

**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 breathed in, move person into fresh air.  
If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.
- In case of skin contact : Remove contaminated clothing. If irritation develops, get medical attention.  
If on skin, rinse well with water.  
First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.  
Wash contaminated clothing before re-use.
- In case of eye contact : Flush eyes with water as a precaution.  
Remove contact lenses.  
Protect unharmed eye.  
If eye irritation persists, consult a specialist.
- If swallowed : Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.

**SAFETY DATA SHEET**

Revision Date: 05/22/2017

Print Date: 6/21/2023

SDS Number: R0173308

Valvoline™ SAE 85W-140 HP GEAR OIL

Version: 1.4

VV829

If symptoms persist, call a physician.

Most important symptoms and effects, both acute and delayed : May cause an allergic skin reaction.  
No symptoms known or expected.

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

**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 : High volume water jet

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

Hazardous combustion products : carbon dioxide and carbon monoxide  
Hydrocarbons  
Sulphur oxides

Specific extinguishing methods :  
  
Product is compatible with standard fire-fighting agents.

Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

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.

**SAFETY DATA SHEET**

Revision Date: 05/22/2017

Print Date: 6/21/2023

SDS Number: R0173308

Valvoline™ SAE 85W-140 HP GEAR OIL

Version: 1.4

VV829

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 : Do not breathe vapours/dust.  
Do not smoke.  
Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.  
Container hazardous when empty.  
Avoid exposure - obtain special instructions before use.  
Avoid contact with skin and eyes.  
Smoking, eating and drinking should be prohibited in the application area.  
For personal protection see section 8.  
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.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.

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

**Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
MINERAL OIL		TWA	5 mg/m3 Mist	OSHA Z-1
		TWA	5 mg/m3 Inhalable fraction	ACGIH
		TWA	5 mg/m3 Mist	OSHA P0
		TWA	5 mg/m3 Mist	NIOSH REL
		ST	10 mg/m3 Mist	NIOSH REL



**SAFETY DATA SHEET**

Revision Date: 05/22/2017

Print Date: 6/21/2023

SDS Number: R0173308

Valvoline™ SAE 85W-140 HP GEAR OIL

Version: 1.4

VV829

		PEL	5 mg/m3 particulate	CAL PEL
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**Hazardous components without workplace control parameters**

Components	CAS-No.
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**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**

Hand protection

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.

Skin and body protection : Wear as appropriate:  
Impervious clothing  
Safety shoes  
Choose body protection according to the amount and concentration of the dangerous substance at the work place. Discard gloves that show tears, pinholes, or signs of wear. Wear resistant gloves (consult your safety equipment supplier).

Hygiene measures : Wash hands before breaks and at the end of workday.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

- Physical state : liquid
- Colour : amber
- Odour : No data available
- Odour Threshold : No data available
- pH : No data available
- Melting point/freezing point : No data available
- Boiling point/boiling range : 600.01 °F / 315.56 °C  
(1,013.333333 hPa)  
Calculated Phase Transition Liquid/Gas
- Flash point : > 390 °F / > 199 °C

**SAFETY DATA SHEET**

Revision Date: 05/22/2017

Print Date: 6/21/2023

SDS Number: R0173308

Valvoline™ SAE 85W-140 HP GEAR OIL

Version: 1.4

VV829

Method: Cleveland open cup

Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper explosion limit	: 7 %(V) Calculated Explosive Limit
Lower explosion limit	: 0.9 %(V) Calculated Explosive Limit
Vapour pressure	: 0.1 hPa (20 °C) Calculated Vapor Pressure
Relative vapour density	: No data available
Relative density	: No data available
Density	: 0.9040 g/cm <sup>3</sup> (15.56 °C)
Solubility(ies)	
Water solubility	: No data available
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Thermal decomposition	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: 394 mm <sup>2</sup> /s (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 reactions	: Product will not undergo hazardous polymerization.
Conditions to avoid	: None known.
Incompatible materials	: Strong oxidizing agents

**SAFETY DATA SHEET**

Revision Date: 05/22/2017

Print Date: 6/21/2023

SDS Number: R0173308

Valvoline™ SAE 85W-140 HP GEAR OIL

Version: 1.4

VV829

Hazardous decomposition  
productscarbon dioxide and carbon monoxide  
Sodium oxides**SECTION 11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure : Inhalation  
Skin contact  
Eye Contact  
Ingestion**Acute toxicity**

Not classified based on available information.

**Components:**

OLEFINSULFIDE:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 401  
Assessment: Not classified as acutely toxic by ingestion under GHS.  
Remarks: No mortality observed at this dose.Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 402  
Assessment: Not classified as acutely toxic by dermal absorption under GHS.  
Remarks: No mortality observed at this dose.

React. prod. of bis(2-methylpentan-2-yl)dithiophosphoricacid + phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched):

Acute oral toxicity : LD50 (Rat): ca. 2,000 mg/kg  
Method: OECD Test Guideline 401  
Assessment: The component/mixture is classified as acute oral toxicity, category 4.**Skin corrosion/irritation**

Not classified based on available information.

**Product:**

Remarks: May cause skin irritation in susceptible persons.

**Components:**

OLEFINSULFIDE:

Result: Mild skin irritation

**Serious eye damage/eye irritation**

Not classified based on available information.

**Product:**

Remarks: Unlikely to cause eye irritation or injury.

**SAFETY DATA SHEET**

Revision Date: 05/22/2017

Print Date: 6/21/2023

SDS Number: R0173308

Valvoline™ SAE 85W-140 HP GEAR OIL

Version: 1.4

VV829

**Components:**

OLEFINSULFIDE:

Result: Slight, transient irritation

React. prod. of bis(2-methylpentan-2-yl)dithiophosphoricacid + phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched):

Result: Corrosive

**Respiratory or skin sensitisation**

Skin sensitisation: May cause an allergic skin reaction.

Respiratory sensitisation: Not classified based on available information.

**Components:**

OLEFINSULFIDE:

Test Type: Maximisation Test

Species: Guinea pig

Assessment: The product is a skin sensitiser, sub-category 1B.

Method: OECD Test Guideline 406

React. prod. of bis(2-methylpentan-2-yl)dithiophosphoricacid + phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched):

Test Type: Local lymph node assay

Species: Mouse

Method: OECD Test Guideline 429

Result: May cause sensitisation by skin contact.

Germ cell mutagenicity

Not classified based on available information.

**Components:**

OLEFINSULFIDE:

Genotoxicity in vitro

: Test Type: in vitro assay

Result: Positive results were obtained in some in vitro tests.

Genotoxicity in vivo

: Test Type: Micronucleus test

Test species: Mouse

Cell type: Bone marrow

Method: OECD Test Guideline 474

Result: negative

**Carcinogenicity**

Not classified based on available information.

**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.

**Product:**



**SAFETY DATA SHEET**

Revision Date: 05/22/2017

Print Date: 6/21/2023

SDS Number: R0173308

Valvoline™ SAE 85W-140 HP GEAR OIL

Version: 1.4

VV829

No aspiration toxicity classification

**Further information**

**Product:**

Remarks: No data available

**Carcinogenicity:**

**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 identified as a carcinogen or potential carcinogen by OSHA.

**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.

**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Product:**

Ecotoxicology Assessment

Acute aquatic toxicity : Acute aquatic toxicity Category 3; Harmful to aquatic life.

Chronic aquatic toxicity : Chronic aquatic toxicity Category 3; Harmful to aquatic life with long lasting effects.

**Components:**

OLEFINSULFIDE:

Ecotoxicology Assessment

Acute aquatic toxicity : Harmful to aquatic life.

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

React. prod. of bis(2-methylpentan-2-yl)dithiophosphoricacid + phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched):

Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): ca. 24 mg/l  
 Exposure time: 96 h  
 Test Type: static test  
 Test substance: WAF  
 Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EL50 (Water flea (Daphnia magna)): ca. 91.4 mg/l  
 Exposure time: 48 h  
 Test Type: static test  
 Test substance: WAF  
 Method: OECD Test Guideline 202

**SAFETY DATA SHEET**

Revision Date: 05/22/2017

Print Date: 6/21/2023

SDS Number: R0173308

Valvoline™ SAE 85W-140 HP GEAR OIL

Version: 1.4

VV829

Toxicity to algae : ErC50 (Pseudokirchneriella subcapitata (green algae)): 15 mg/l  
 End point: Growth inhibition  
 Exposure time: 96 h  
 Test Type: static test  
 Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): 3.3 mg/l  
 End point: Growth inhibition  
 Exposure time: 96 h  
 Test Type: static test  
 Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Water flea (Daphnia magna)): 0.12 mg/l  
 Exposure time: 21 d  
 End point: Reproduction Test  
 Test Type: semi-static test  
 Test substance: WAF  
 Method: OECD Test Guideline 211

Ecotoxicology Assessment  
 Acute aquatic toxicity : Toxic to aquatic life.

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

**Persistence and degradability**

**Components:**

OLEFINSULFIDE:

Biodegradability : Result: Not readily biodegradable.  
 Biodegradation: 13 %  
 Exposure time: 28 d  
 Method: OECD Test Guideline 301B

React. prod. of bis(2-methylpentan-2-yl)dithiophosphoricacid + phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched):

Biodegradability : Result: Not readily biodegradable.  
 Biodegradation: 7.4 %  
 Exposure time: 28 d  
 Method: Modified Sturm Test

No data available

**Bioaccumulative potential**

**Components:**

React. prod. of bis(2-methylpentan-2-yl)dithiophosphoricacid + phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched):

Partition coefficient: n- : Remarks: No data available  
 octanol/water

No data available



**SAFETY DATA SHEET**

Revision Date: 05/22/2017

Print Date: 6/21/2023

SDS Number: R0173308

Valvoline™ SAE 85W-140 HP GEAR OIL

Version: 1.4

VV829

**Mobility in soil**

**Components:**

No data available

**Other adverse effects**

No data available

**Product:**

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Harmful to aquatic life with long lasting effects.

**Components:**

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

General advice : The product should not be allowed to enter drains, water courses or the soil.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Send to a licensed waste management company.

Dispose of in accordance with all applicable local, state and federal regulations.

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Do not re-use empty containers.

**SECTION 14. TRANSPORT INFORMATION**

**International transport regulations**

**REGULATION**

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.

**U.S. DOT - ROAD**


Not dangerous goods
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**INTERNATIONAL MARITIME DANGEROUS GOODS**

Not dangerous goods
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**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO**

Not dangerous goods
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		Page: 12
<b>SAFETY DATA SHEET</b>		Revision Date: 05/22/2017
		Print Date: 6/21/2023
		SDS Number: R0173308
Valvoline™ SAE 85W-140 HP GEAR OIL		Version: 1.4
VV829		

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER**

Not dangerous goods

\*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Marine pollutant	no
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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**

This material does not contain any components with a CERCLA RQ.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

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

**SARA 311/312 Hazards** : Acute Health Hazard

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**California Prop 65** : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**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 : On the inventory, or 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

TSCA : On TSCA Inventory

**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)

**SAFETY DATA SHEET**

Revision Date: 05/22/2017

Print Date: 6/21/2023

SDS Number: R0173308

Valvoline™ SAE 85W-140 HP GEAR OIL

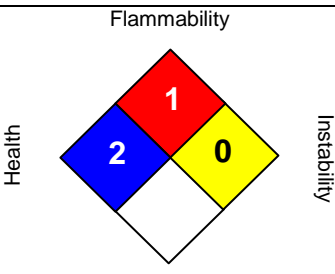
Version: 1.4

VV829

**SECTION 16. OTHER INFORMATION**

**Further information**

Revision Date: 05/22/2017

NFPA:	HMIS III:						
 <p>Flammability</p> <p>Health</p> <p>Instability</p> <p>Special hazard.</p>	<table border="1"> <tr> <td><b>HEALTH</b></td> <td><b>2</b></td> </tr> <tr> <td><b>FLAMMABILITY</b></td> <td><b>1</b></td> </tr> <tr> <td><b>PHYSICAL HAZARD</b></td> <td><b>0</b></td> </tr> </table> <p>0 = not significant, 1 =Slight, 2 = Moderate, 3 = High 4 = Extreme, * = Chronic</p>	<b>HEALTH</b>	<b>2</b>	<b>FLAMMABILITY</b>	<b>1</b>	<b>PHYSICAL HAZARD</b>	<b>0</b>
<b>HEALTH</b>	<b>2</b>						
<b>FLAMMABILITY</b>	<b>1</b>						
<b>PHYSICAL HAZARD</b>	<b>0</b>						

**NFPA Flammable and Combustible Liquids Classification**

Combustible Liquid Class IIIB

**Full text of H-Statements**

- H227 Combustible liquid.
- H302 Harmful if swallowed.
- H317 May cause an allergic skin reaction.
- 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 :

**SAFETY DATA SHEET**

Revision Date: 05/22/2017

Print Date: 6/21/2023

SDS Number: R0173308

Valvoline™ SAE 85W-140 HP GEAR OIL

Version: 1.4

VV829

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  
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