

WHMIS 2015

HARMONIZATION OR
HEADACHE?



PRESENTED BY

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Growth of “Right to Know”

- EU Seveso Directive – 1982
- OSHA Hazcom Standard (OSHA 1910.1200) – 1985
- Canada’s WHMIS – 1988

- BUT – these were all independently developed

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Recognize These?



- Chinese symbol for toxic waste



- “Harmful or Irritant” in EU



- Tactile symbol for toxic materials (ISO 11683)

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Just in North America ...

PRODUCT NAME
SIGNAL WORD
RISK PHRASES
Safety phrases
First aid
Fire protection
Leak/spill protection
Chemical content
California Prop 65 Statement (maybe?)
Supplier's information

US Workplace Label
(OSHA, Prop. 65, ANSI)

PRODUCT NAME	
Risk phrases	Mentions de risques
Precautions	Précautions à prendre
First aid	Premiers soins
Reference to MSDS	Voir Fiche Signalétique
	

Supplier Identifier
Canadian WHMIS Label

Solution – A Harmonized System!



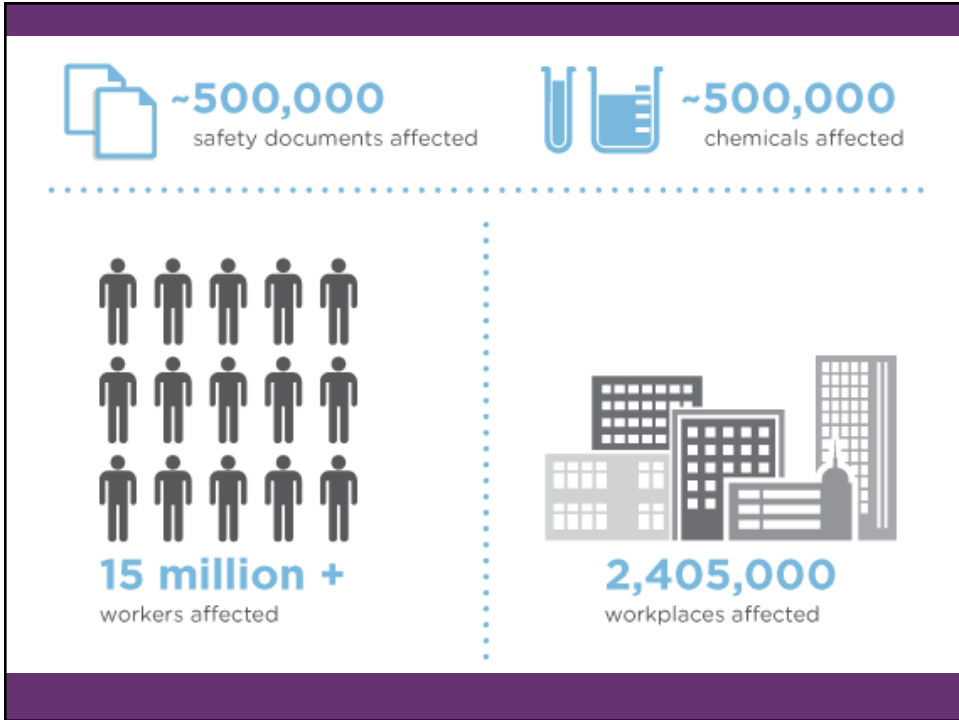
WHMIS

Workplace Hazardous Material Information System

WHMIS – Canada’s Right to Know

- Created 1988
 - *Hazardous Products Act* →
“Controlled Products
Regulations”
- WHMIS 2015
 - “Controlled Products
Regulations” replaced by
“Hazardous Products
Regulations”
 - Implementation of
international GHS standard





What is the GHS?

- GHS is the GLOBALLY HARMONIZED SYSTEM of Classification and Labelling of Chemicals
- Goal – international standard for chemical hazard communication



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Where Does GHS Come From?

- Originated at UN level
 - Globally Harmonized System of Classification and Labelling of Chemicals (GHS), known as “Purple Book”
- Adopted by many countries and zones worldwide



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Other GHS-Compliant Regulations

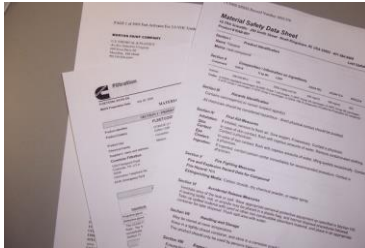
- OSHA Hazcom 2012 (40 CFR 1910.1200)
- EU directives
- Other countries
 - Asian
 - Australia
 - Latin America
 - Etc.

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Basis of Hazard Communication

- Classification
- Labeling
- SDSs
- Training



Classification



Basic Hazards

- WHMIS 2015 addresses the following hazards:



PHYSICAL



HEALTH

Physical Hazards

- Explosives
- Flammable gases
- Flammable aerosols
- Oxidizing gases
- Gases under pressure
- Flammable liquids
- Flammable solids
- Self-reactive substances
- Pyrophoric liquids and solids
- Self-heating substances
- Water-reactive substances
- Oxidizing liquids and solids
- Organic peroxides
- Corrosive to metals
- Combustible dusts
- Simple asphyxiants
- Pyrophoric gases
- Physical hazards not otherwise classified

Health Hazards

- Acute toxicity
- Skin corrosion and irritation
- Serious eye damage and irritation
- Skin/respiratory sensitization
- Germ cell mutagenicity
- Carcinogenicity
- Reproductive toxicity
 - Includes lactation effects
- Specific Target Organ Toxicity
 - Single exposure
 - Repeated exposure
- Aspiration hazards
- Biohazardous infectious materials
- Health hazards not otherwise classified

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Categories

- Hazards are normally assigned to Categories, depending on severity
 - Category 1 most hazardous
 - Category 5 least hazardous (only hazardous to vulnerable segments of population)
- Not all categories are adopted in all countries or modes
 - E.g. Category 5 toxicity not used under WHMIS, but may be used for consumer products

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- Flammables
- Self Reactives
- Pyrophorics
- Self-heating
- Emits Flammable Gas
- Organic Peroxides



- Oxidizers

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- Irritant
- Dermal Sensitizer
- Acute Toxicity (harmful)
- Narcotic Effects
- Respiratory Tract Irritation



- Self Reactives (some)
- Organic Peroxides (some)

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- Corrosives



- Gas Under Pressure

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- Carcinogen
- Respiratory Sensitizer
- Reproductive Toxicity
- Target Organ Toxicity
- Mutagenicity
- Aspiration Toxicity



- Acute Toxicity (severe)

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- Biohazardous Infectious Materials



Container Labels




- Chemical manufacturer/importer/distributor must ensure each classified product is labelled, tagged or marked with:
 - Product identifier
 - Initial supplier identifier
 - Symbol
 - Signal word
 - Hazard statement
 - Precautionary statement

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GHS Tables

Flammable liquids

	Category 1	Category 2	Category 3	Category 4
Symbol				No symbol
Signal word	Danger	Danger	Warning	Warning
Hazard statement	Extremely flammable liquid and vapour	Highly flammable liquid and vapour	Flammable liquid and vapour	Combustible liquid

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Product Identifier → TOLUENE/TOLUÈNE

Signal Word → DANGER!

Hazard Statements → Highly flammable liquid and vapour. Causes skin irritation. May be fatal if swallowed and enters airways. May cause drowsiness or dizziness. May cause genetic defects. Suspected of damaging the unborn child by inhalation. May cause damage to the central nervous system through inhalation.

Precautionary Statements → PREVENTION: Keep away from heat, sparks and open flames. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical equipment. Use non-sparking tools. Take precautionary measures against static discharge. Do not breathe vapours or mist. Wash hands thoroughly after handling. Wear protective gloves and eye protection. Use only outdoors or in a well-ventilated area. If SWALLOWED: Immediately call a poison centre or doctor. Do NOT induce vomiting. If INHALED: Remove person to fresh air and keep comfortable for breathing. Call a poison centre or doctor if you feel unwell. If ON SKIN (OR HAIR): Take off immediately all contaminated clothing. Rinse skin with plenty of soap and water/shower. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical attention. If exposed or concerned: Call a poison centre or doctor. IN CASE OF FIRE: Use dry chemical, foam, water spray or fog to extinguish. STORAGE: Store in a well-ventilated place. Keep cool. Store locked up. DISPOSAL: Dispose of contents / container in accordance with local, provincial and federal regulations.

Pictograms →

Supplier Identifier → ICC Compliance Center Inc. 7-205 Matheson Blvd. E. Mississauga, ON L4Z 1X8 Telephone/téléphone: 1-888-977-4834

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Safety Data Sheets

- GHS requires 16-heading format
- Sections not related to health/safety are optional (12-15)
- If using containers with WHMIS 1988 labels, must maintain old MSDS
- Must provide in both French and English as one document, or two documents transmitted at same time

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16-Heading Format

- Identification
- Hazard identification
- Composition/Information on ingredients
- First-aid measures
- Fire-fighting measures
- Accidental release measures
- Handling and storage
- Exposure controls/personal protection
- Physical and chemical properties
- Stability and reactivity
- Toxicological information
- *Ecological information*
- *Disposal considerations*
- *Transport information*
- *Regulatory information*
- Other information.

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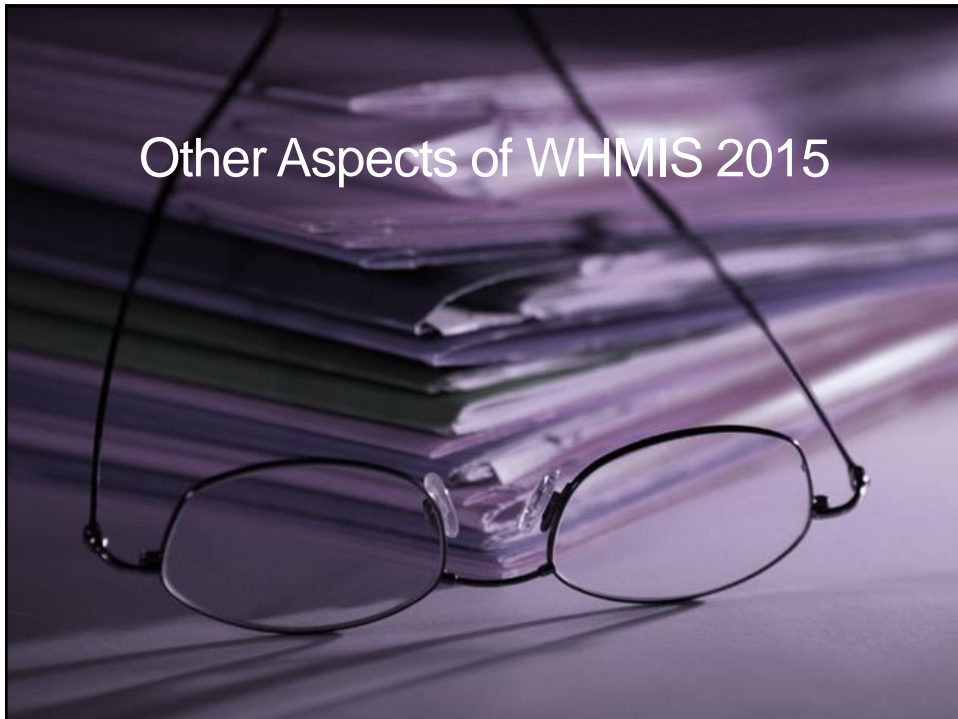
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Ingredient Information

- Must list all ingredients that pose health hazards
- Concentrations must be exact as possible

Hazardous Components		
Chemical name	Identifiers	% (w/w)
Isopropanol	CAS:67-63-0 UN:UN1219	5
Naphtha (petroleum), hydrotreated light	CAS:64742-49-0	43

Other Aspects of WHMIS 2015



Trade Secrets

- GHS does not have specific requirements for trade secrets
- Canada will still use *Hazardous Materials Information Review Act*
 - Fees for approval
 - Information must be revealed in medical emergencies
- US trade secrets will not be reciprocal with Canada

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Implementation

- Manufacturer/Importer
 - June 1, 2017
- Distributors
 - June 1, 2018
- Employers
 - December 1, 2018



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Conclusions

- GHS will be accepted by most nations eventually
- Changes will be gradual, but extensive
- Harmonization is not the same thing as being identical
 - Many countries, including the US, Canada and the European Union, will keep certain unique requirements

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*<http://www.thecompliancecenter.com/news/compliance-bulletin/subscribe.htm>

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Thank you for attending!

**For assistance with GHS compliance, in
addition to transportation needs, call ICC
Compliance Center**

1-888-977-4834 (Canada)

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