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Chemical Hazards

WHMIS CHEMICAL HAZARDS

W Workplace

H Hazardous

M Materials

I Information

S System

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Chemical Hazards

HAZARD SYMBOLS

Hazard Description

WHMIS Symbol

Consumer Product Symbol

DANGER WARNING CAUTION

**POISONOUS/INFECTIOUS/
BIOHAZARDOUS**
Causes immediate or long
term poisoning or disease



FLAMMABLE & COMBUSTIBLE
Catches fire very suddenly



OXIDIZING
Feeds a fire and makes
it larger



CORROSIVE:
Burns skin and eyes - Harmful if breathed



DANGEROUSLY REACTIVE
Explodes or gives off dangerous vapours



COMPRESSED GAS
Takes off like a rocket if dropped,
heated or crushed



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WHMIS RESPONSIBILITIES

Chemical Hazards

Supplier

- Provide labels and MSDS

Employer

- Make labels and MSDS available
- Develop safe procedures
- Train workers on WHMIS

Worker

- Follow safe work procedures
- Inform employer of hazards

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CHEMICAL HAZARDS

FOUR MAIN PARTS OF WHMIS

1. **Classification and symbols**
2. **Labels**
3. **Material Safety Data Sheets (MSDS)**
4. **Worker education**

Chemical Hazards

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Chemical Hazards

CHEMICAL HAZARDS

SUPPLIER LABEL

- Name of Product
- Supplier Identifier
- Statement referring to MSDS
- Hazard Symbols
- Risk Phrases
- Precautionary Measures
- First Aid Treatment

SULPHURIC ACID, FUMING
ACIDE SULFURIQUE

Risk phrases:
HIGHLY IRRITATING TO SKIN, EYES AND NOSE.
Health Hazard Data:
STRONG ACID, VAPOURS HIGHLY TOXIC, BURNS SKIN ON CONTACT.
Precautionary Statements:
EYES: FACESHIELD AND GOGGLES
GLOVES: RUBBER
Personal Protective Equipment:
RUBBER APRON, RUBBER BOOTS.
First Aid Measures:
EYES: FLUSH WITH LARGE QUANTITIES OF WATER. CONSULT PHYSICIAN AT ONCE.
SKIN: FLUSH WITH WATER. CONSULT PHYSICIAN.
Ingestion:
TREAT WITH BAKING SODA, MILK OF MAGNESIA OR LARGE QUANTITIES OF MILK. DO NOT INDUCE VOMITING.

Résumé des dangers:
EXTRÊMEMENT IRRITANT POUR LA PEAU, LES YEUX ET LE NEZ.
Représentant sur les dangers pour la santé:
ACIDE FORT. TRAITER COMME POUR L'ACIDE FORT.
Surexposition à la peau et aux yeux.
Mesures de précaution:
ÉQUIPEMENT DE PROTECTION SPÉCIFIQUE:
YEUX: ÉCRAN FACIAL ET LUNETTES
GANTS EN CAOUTCHOUC
Autre vêtements et équipement:
TABLIER EN CAOUTCHOUC, BOTTES EN CAOUTCHOUC.
Premiers soins:
YEUX: RINÇER À GRANDE EAU PENDANT 15 MINUTES. CONSULTER UN MÉDECIN.
Peau: RINÇER À L'EAU. CONSULTER UN MÉDECIN.
Ingestion: TRAITER COMME POUR L'ACIDE FORT. CONSULTER UN MÉDECIN.

REFER TO MATERIAL DATA SHEET FOR FURTHER INFORMATION.
POUR PLUS D'INFORMATION, CONSULTER LA FICHE SIGNALÉTIQUE.

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CHEMICAL HAZARDS

3. MATERIAL SAFETY DATA SHEETS

Material Safety Data Sheet

SUPPLIER/DISTRIBUTOR MD-40 PRODUCTS (CANADA) LTD
ADDRESS POST OFFICE BOX 220
ETOBICOKE ONTARIO
CANADA M9C 4V1
Telephone: (416) 622-9991
Fax: (416) 522-8096
EMERGENCY TELEPHONE NO. 800-424-9200 (CHEMTREC)

SECTION I: PRODUCT AND PREPARATION INFORMATION

TRADE NAME AND SYNONYMS MD-40 BULK LIQUID
PRODUCT USE LUBRICANT/PENETRANT
CHEMICAL NAMES AND SYNONYMS ORGANIC MIXTURE
CODE NUMBER 01010, 01119
PREPARED BY TECHNICAL GROUP, (416) 622-9991
DATE OF PREPARATION MAY 1, 1999

SECTION II: HAZARDOUS INGREDIENTS

HAZARDOUS INGREDIENTS	CAS NUMBER	FIN (UN)	PERCENT BY WT.
STANDARD SOLVENT	8052-41-3	1269	60-100

[Aliphatic Petroleum Distillates]

NATURE OF HEALTH HAZARD AND ROUTE OF ENTRY
May cause eye, skin irritation. Low toxicity via inhalation.
TYPE OF HAZARD
CHRONIC [] ACUTE [X]

EXPOSURE LIMITS

PPM 100

mg/m³

SOURCE ACUTE

LD50 (ORAL SP.) 6400 mg/kg RAT

LC 50 (INH. SP.) 1400 ppm (4 hr.) Rat

BALANCE OF INGREDIENTS ARE NOT CONSIDERED HAZARDOUS, ACCORDING TO MSDS

SECTION III: SHIPPING INFORMATION

WPA CLASS - CLASS 2

TDG CLASS - CLASS 3 - 205 LITRE DRUM, NOT REGULATED FOR 2.795 LITRES

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Chemical Hazards

CHEMICAL HAZARDS

WORKPLACE LABEL

- Product name
- Information for safe handling
- MSDS available
- WHMIS symbols (optional)



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CHEMICAL HAZARDS

1. CLASSIFICATION AND SYMBOLS

- A** - Compressed Gases
- B** - Flammable and Combustible Material
- C** - Oxidizing Material
- D** - Poisonous and Infectious Material
- E** - Corrosive Material
- F** - Dangerously Reactive Material

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Chemical Hazards

CHEMICAL HAZARDS

WHMIS
CLASS A



COMPRESSED GAS

- Gas under pressure or chilled and contained in a cylinder

Examples: Oxygen, acetylene, propane, some aerosol spray cans

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Chemical Hazards

CHEMICAL HAZARDS

WHMIS
CLASS B



FLAMMABLE AND COMBUSTIBLE MATERIAL

- Flammable - burns at room temperature
- Combustible - burns if heated above room temperature

Examples: Gasoline, heating fuel, turpentine, chlorine, propane, acetylene

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CHEMICAL HAZARDS

WHMIS
CLASS C



OXIDIZING MATERIAL

- Helps other material to burn, in some cases from contact without a flame or spark

Examples:

Ozone, oxygen gas,
nitric acid, chlorine,
potassium permanganate

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CHEMICAL HAZARDS

WHMIS
CLASS D-1



POISONOUS MATERIAL

- Materials causing immediate (acute) and serious toxic effect

Examples: Cyanide, hydrogen sulfide, chlorine, carbon monoxide

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CHEMICAL HAZARDS

WHMIS
CLASS D-2



TOXIC MATERIAL

- Materials causing other toxic effects
- Long term effects can be eye and skin irritation (chronic), cancer, harm to unborn baby, changes to genes

Examples: Asbestos, silica, arsenic, mercury, lead

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CHEMICAL HAZARDS

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CLASS D-3



BIOHAZARDOUS

- Infectious material (live bacteria or infectious material)
- Infectious material in blood, urine, saliva

Examples: Anthrax, feces, Salmonella, HIV virus (AIDS), Ebola virus, TB (saliva), E. coli

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CHEMICAL HAZARDS

WHMIS
CLASS E



CORROSIVE MATERIAL

- Causes burns to skin, eyes, lungs, clothes and metals

Examples: Acids and alkalis
(bleach, battery acid)

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CHEMICAL HAZARDS

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CLASS F



DANGEROUSLY REACTIVE MATERIAL

- Can burn or explode if heated, shaken or mixed with other chemicals
- Material is **unstable**

Examples: Nitroglycerine, aluminum chloride

Chemical Hazards