

Hazard Communications – Safety Data Sheets (SDS)

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Manager, Safety & Prevention

Risk Management and Safety

Objectives

- Describe how hazard communications keeps you safe from chemicals.
- Explain what information can be found in each section of a chemicals Safety Data Sheet (SDS).
- Describe how SDS can help you work safely with chemicals.



Global Harmonization System (GHS)

- Requires hazard information for each chemical to be documented and communicated to every company and person to handles that chemical using SDSs.



Safety Data Sheets

- An SDS provides information you need to work safely with a specific chemical.



Safety Data Sheets

- An SDS identifies information to keep you, your coworkers, and the environment safe.
- Know where to find the SDSs within your building. Never use a chemical until you have the information you need to use it safely.
- If a new chemical is purchased, contact the manufacturer and get the SDS.
- If there any emergency that involves chemicals, including exposure to the chemical, it is up to you to know how to react appropriately.

Safety Data Sheet Example

SDS Number: UR-101 * * * * * Effective Date: 05/27/12 * * * * * Supersedes: 05/08/00

Solvent X (contains Methylene Chloride)

1. Product and Company Identification

Product Name: Solvent X

Synonyms: Machine solvent, industrial solvent, equipment flushing solvent

CAS No.: Not applicable to mixtures

Molecular Weight: Not applicable to mixtures

Emergency Contact: +1-123-555-1212

Product Use: Various industrial uses

Restrictions: Not to be used as a skin cleaner

Chemical Formula: Not applicable to mixtures

Product Codes: UR-101

Manufacturer: U. R. Chemical
Little Hill Dr.
Little Hill, KS 01234
Telephone: +1-123-555-0101
Fax: +1-123-555-0102

2. Hazards Identification

GHS CLASSIFICATION:

Health	Environmental	Physical
Acute Toxicity: Category 4 Skin Irritation: Category 3 Skin Sensitization: NO Eye: Category 2B	Acute Toxicity: None Known Chronic Toxicity: None Known	

GHS LABEL:



Signal Word:
Warning

WHMIS CLASSIFICATION: CLASS D, DIVISION 1

Hazard Statements

H320: Causes eye irritation
H335: May cause respiratory irritation
H336: May cause drowsiness or dizziness
H351: Suspected of causing cancer

Precautionary Statements

P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking
P261: Avoid breathing dust/fume/gas/mist/vapors/spray
P280: Wear protective gloves/protective clothing/eye protection/face protection
P337+P313: Get medical advice/attention
P403+P233: Store in a well ventilated place. Keep container tight
P501: Dispose of contents/container in accordance with local regulations

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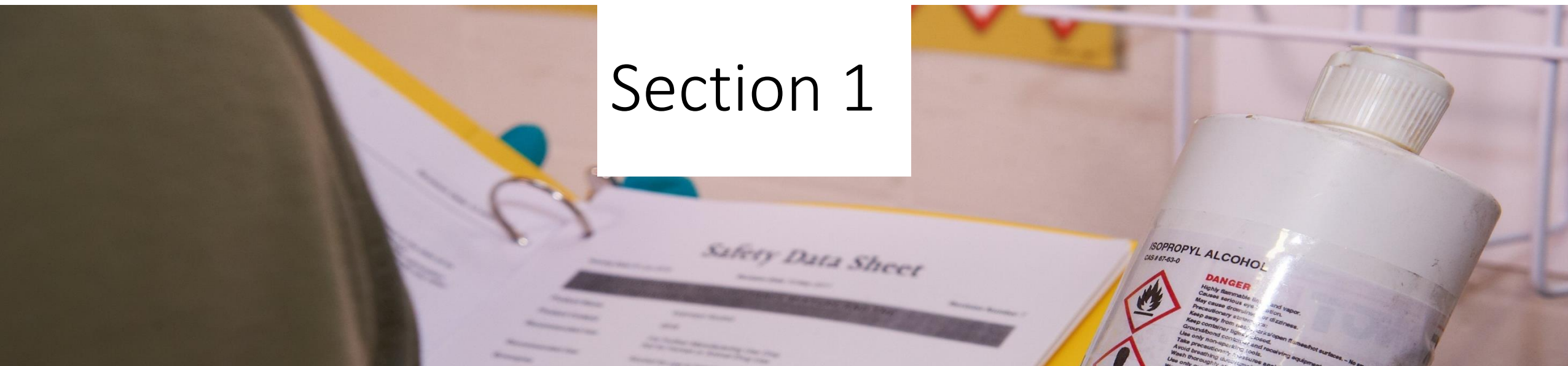
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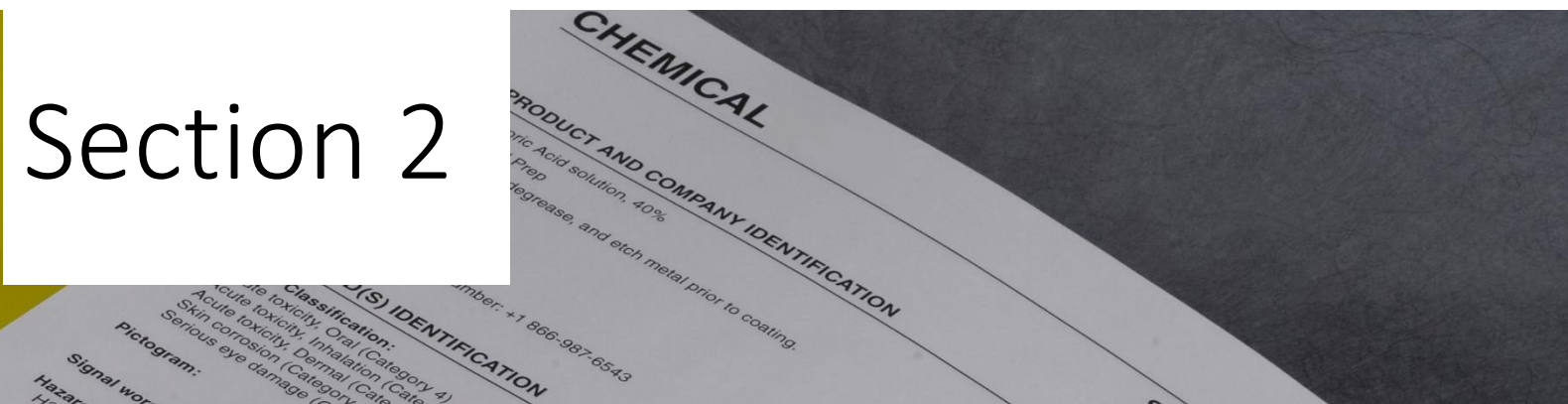
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Little Hill, KS 01234

Telephone: +1-123-555-0101

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Section 2



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Skin Irritation: Category 3	Chronic Toxicity: None Known	
Skin Sensitization: NO		
Eye: Category 2B		

GHS LABEL:



Signal Word:
Warning

WHMIS CLASSIFICATION: CLASS D, DIVISION 1

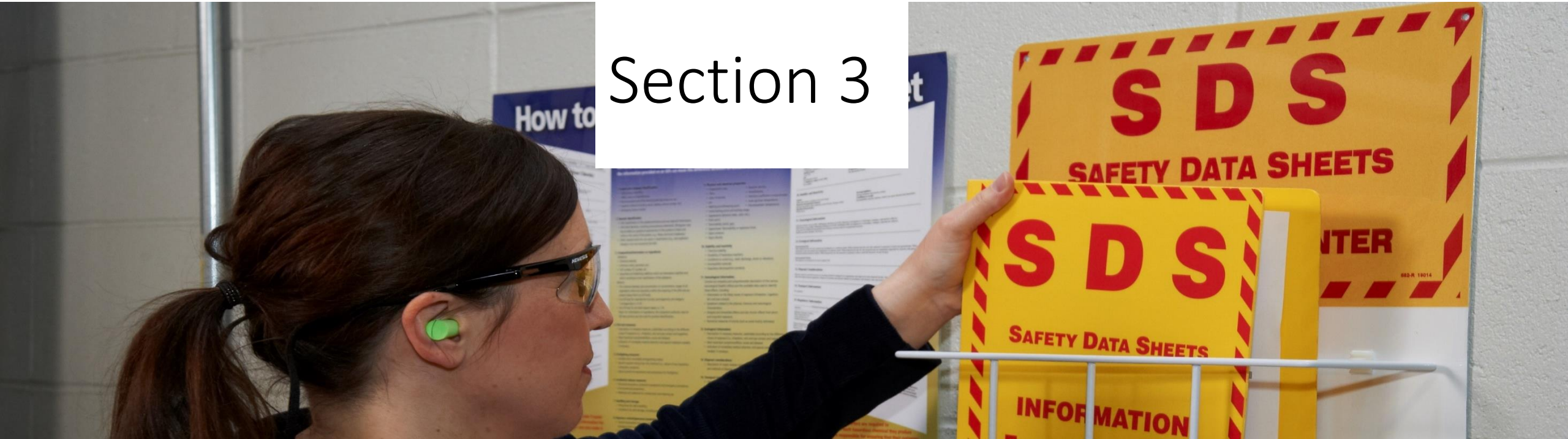
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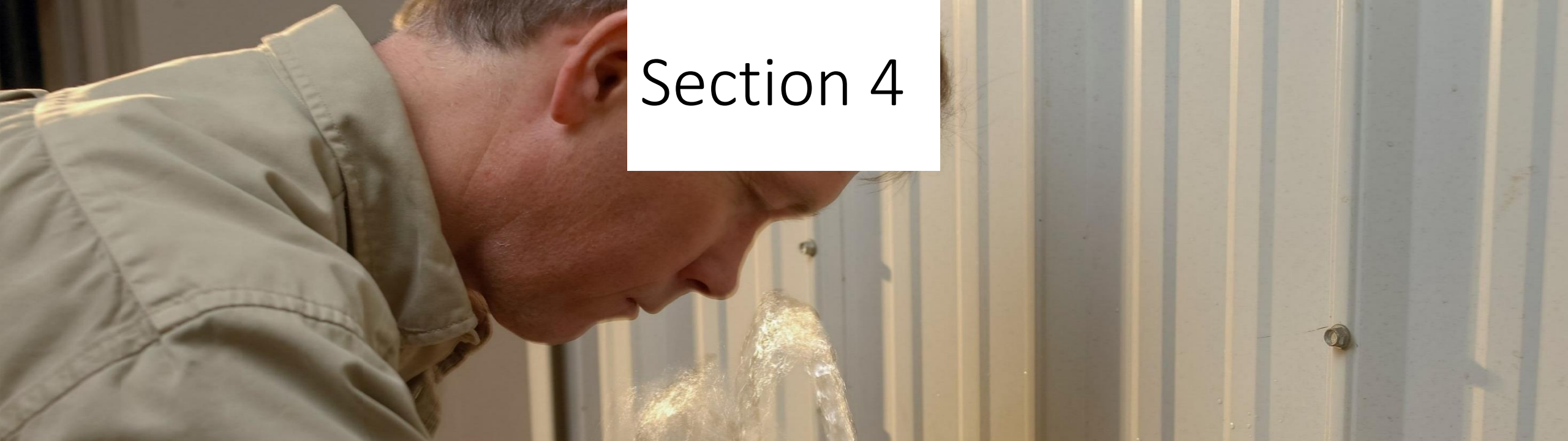
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P501: Dispose of contents/container in accordance with local regulation

Section 3



3. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Methylene Chloride	75-09-2	40%	Yes
Ethyl Alcohol	64-17-5	30%	Yes
Acetic Acid	64-19-7	15%	Yes
Paraffinic Petroleum Distillates	64742-65-0	15%	Yes

A close-up photograph of a person's head and shoulders in profile, wearing a tan shirt. They are drinking water from a public fountain, with a stream of water visible. The background is a light-colored wall with vertical lines.

Section 4

4. First Aid Measures

Inhalation: Remove to fresh air. Get medical attention for any breathing difficulty. If breathing stops, administer artificial respiration.

Ingestion: Do not induce vomiting. Keep individual calm. Obtain medical attention immediately.

Skin Contact: Remove contaminated clothing and shoes. Wash exposed area with soap and water for at least 15 minutes. Get medical advice if irritation develops. Wash contaminated clothing before reuse.

Eye Contact: Flush thoroughly with running water for at least 15 minutes, occasionally lifting the eyelids. Obtain medical attention.

A close-up photograph showing a person's hands holding a red fire extinguisher. The person is wearing a black watch on their left wrist and blue jeans. The fire extinguisher has a black hose and a yellow tag attached to it. The background is a tiled wall with a green pipe.

Section 5

5. Fire Fighting Measures

Fire: Fire is possible if concentrated vapors are exposed to elevated temperatures.

Fire Extinguishing Media: Water spray, dry chemical, alcohol foam, or carbon dioxide.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Section 6



6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Pick up spill for recovery or disposal and place in a closed container. Keep spilled material away from sewage/drainage systems and waterways.

Section 7



7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Observe all warnings and precautions listed for the product.



Section 8

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:

- OSHA Permissible Exposure Limit (PEL):
 - methylene chloride = 5000 ppm (TWA);
 - ethyl alcohol = 1000 ppm;
 - acetic acid = none established;
 - paraffinic petroleum distillates = 400 ppm.
- ACGIH Threshold Limit Value (TLV):
 - methylene chloride = 50 ppm (TWA);
 - ethyl alcohol = 1000 ppm;
 - acetic acid = none established;
 - paraffinic petroleum distillates = 400 ppm.

Ventilation System:

Sufficient to maintain vapor concentration below TLV. Do not use in a closed or confined space.

Personal Respirators (NIOSH Approved):

If the exposure limit is exceeded, wear an appropriate NIOSH N95 respirator, full-facepiece respirator, or airlined hood.

Skin Protection:

Wear impervious protective clothing, including gloves and apron, to prevent skin contact.

Eye Protection:

Use chemical safety goggles or full face shield when splashing is a concern. Maintain eye-wash fountain and quick-drench facility in the work area.

Other Control Measures:

Protective equipment for laboratory bench use should be chosen using professional judgment based on the size and type of reaction

Notice: Chemical and other data represented in this safety data sheet image is for example purposes only.



Section 9



9. Physical and Chemical Properties

Appearance:

Clear, yellowish liquid.

Odor:

Sweet, aromatic odor.

Solubility:

1.4 grams per 100 grams at 77°F

Specific Gravity:

1.2 at 77°F

pH:

No information found.

% Volatiles by volume @ 21°C (70°F):

Not available

Boiling Point:

No information found.

Melting Point:

199°C (390°F) Decomposes.

Freezing Point:

-96.7°C (-142.1°F)

Flash Point:

16°C (61°F)

Flammability:

Non-flammable liquid. Vapor will burn at high temperatures.

Vapor Density (Air=1):

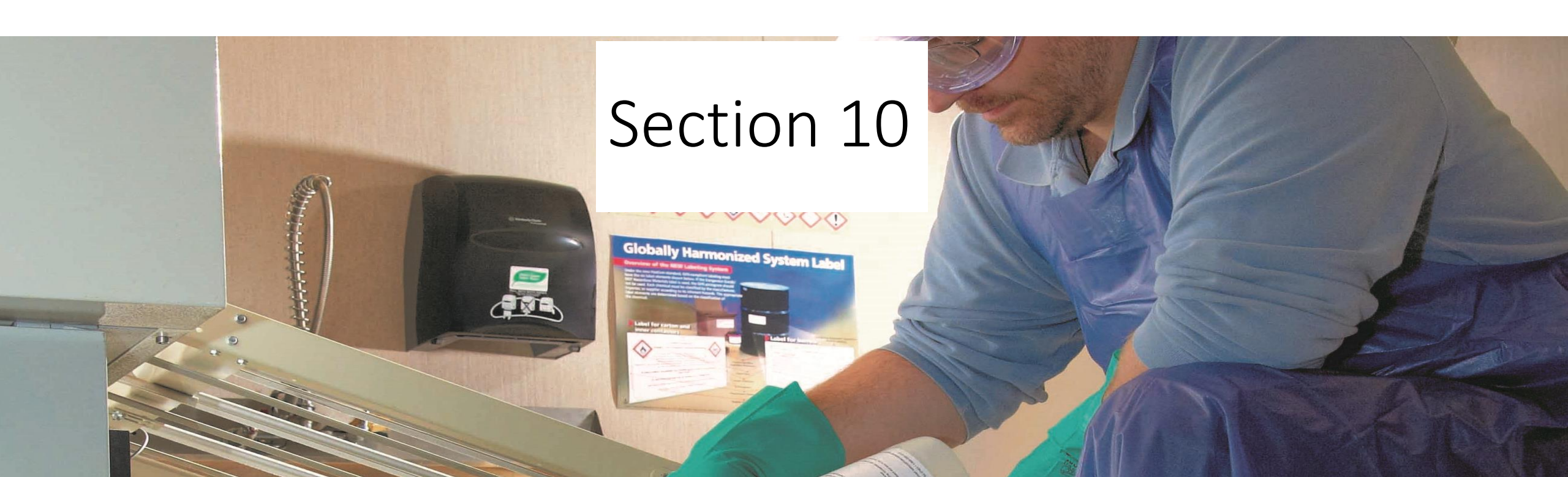
No information found.

Vapor Pressure (mm Hg):

No information found.

Evaporation Rate (BuAc=1):

No information found.



Section 10

10. Stability and Reactivity

Stability:

Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:

Burning may produce carbon monoxide, carbon dioxide, nitrogen oxides.

Hazardous Polymerization:

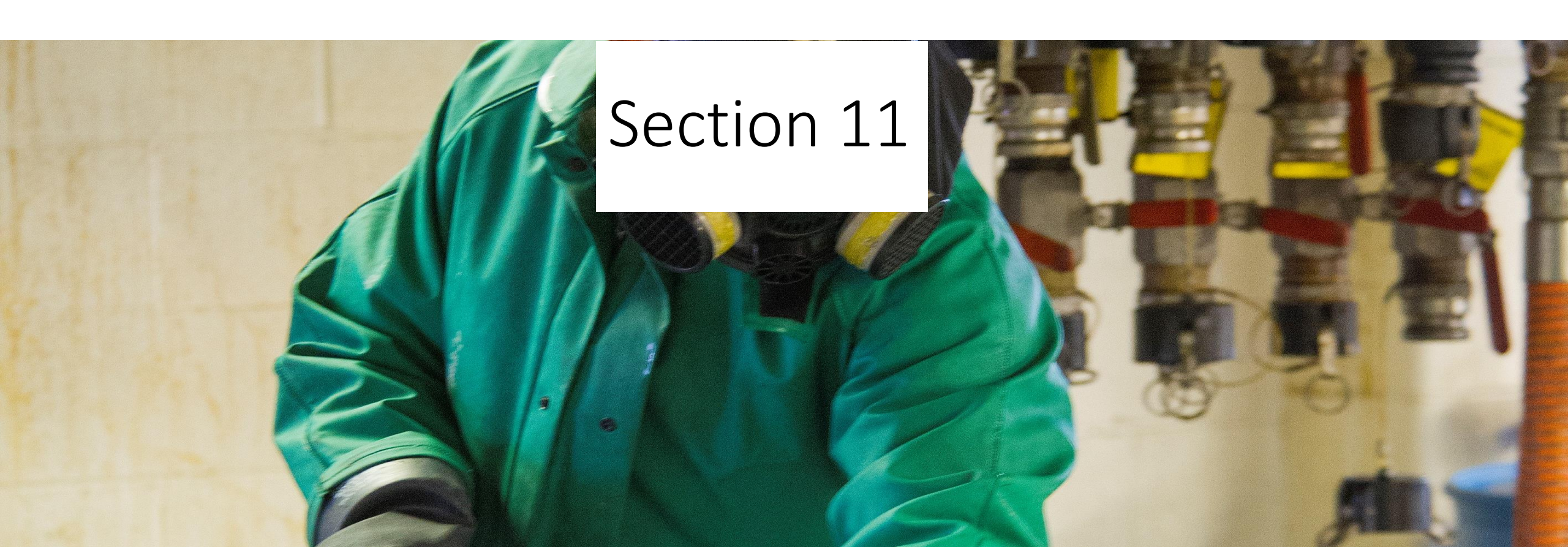
Will not occur.

Incompatibilities:

Strong oxidizers and reactive metals.

Conditions to Avoids:

Incompatibles and hot surfaces which can cause thermal decomposition.

A person wearing a green hazmat suit and a respirator mask is working with industrial equipment. The background shows various pipes, valves, and a blue container. The text "Section 11" is overlaid on the image.

Section 11

11. Toxicological Information

Methylene chloride: oral rat LD50: 16000mg/kg; inhalation rat LC50: 52gm/m³; investigated as a tumorigen, mutagen, reproductive effector.

Ethyl alcohol: oral rat LD50= 7060mg/kg; inhalation rat LC50= 20,000ppm/10H; investigated as a tumorigen, mutagen, reproductive effector.

Acetic acid: No LD50/LC50 information found relating to normal routes of occupational exposure.

Paraffinic petroleum distillates: Not known.



Section 12

12. Ecological Information

Environmental Fate:

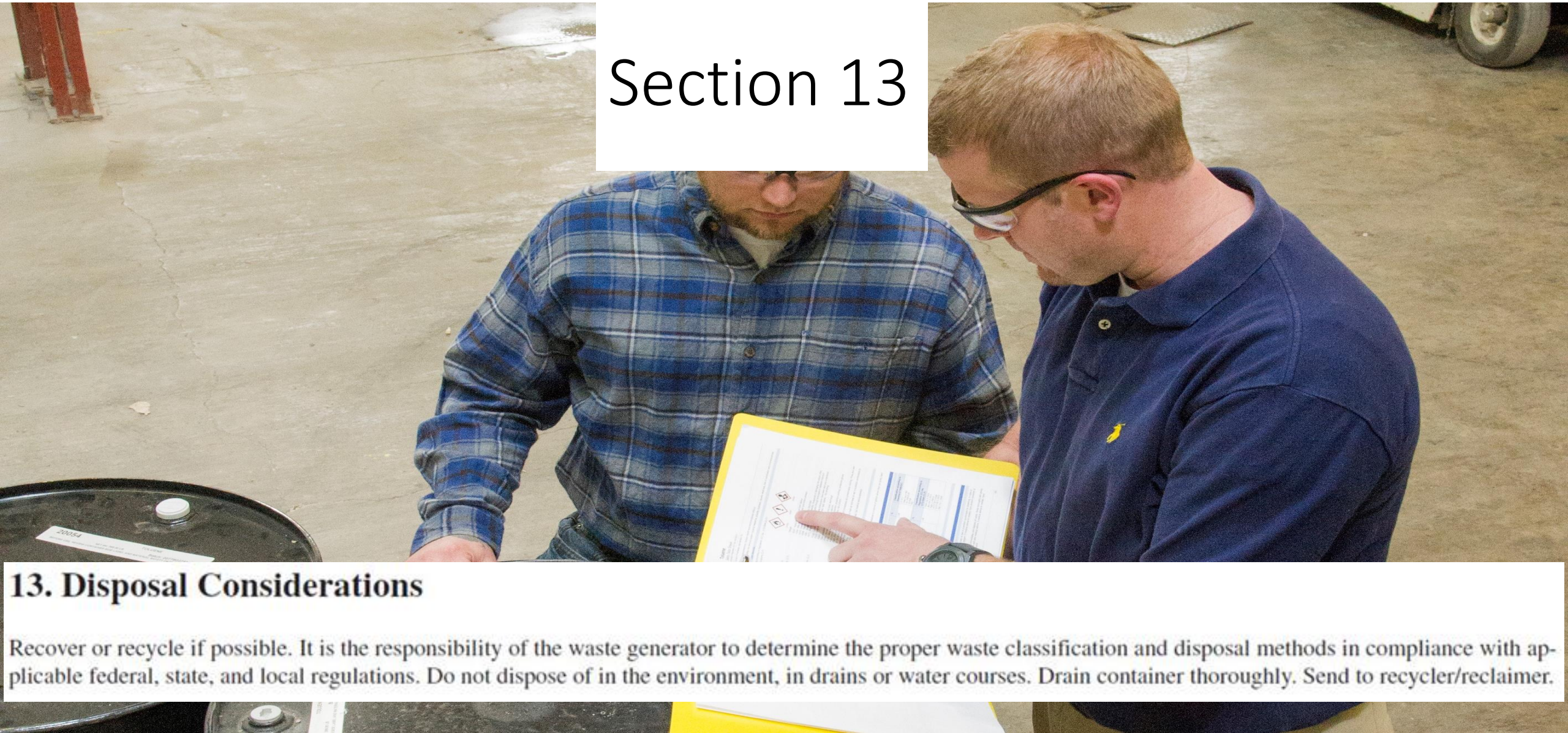
When released into the soil, this material may biodegrade to a moderate extent. When released into the soil, this material is expected to leach into groundwater. When released into water, this material may biodegrade to a moderate extent. When released into the air, this material may be moderately degraded by reaction with photochemically produced hydroxyl radicals. When released into air, this material is expected to have a half-life between 10 and 30 days.

Ecotoxicological Data:

96 hr. NOEL (minnow) 110 mg/L

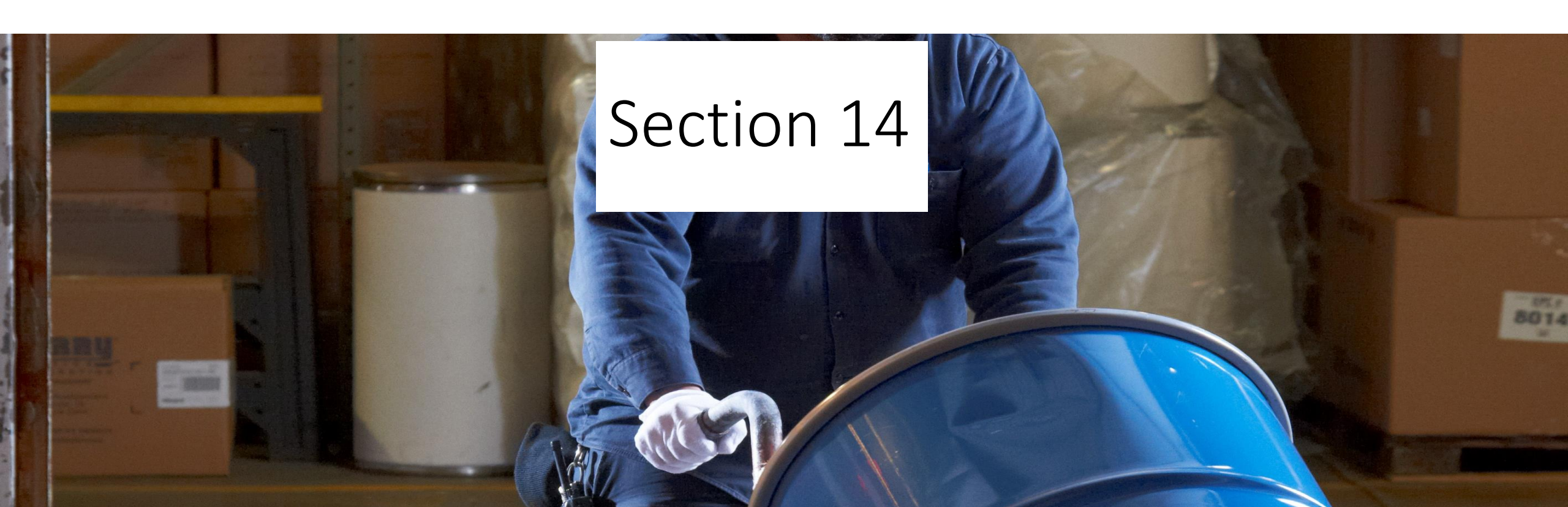
24 hr EC50 (Daphnia Magna) 460 mg/L

Section 13



13. Disposal Considerations

Recover or recycle if possible. It is the responsibility of the waste generator to determine the proper waste classification and disposal methods in compliance with applicable federal, state, and local regulations. Do not dispose of in the environment, in drains or water courses. Drain container thoroughly. Send to recycler/reclaimer.



Section 14

14. Transport Information

Transport in accordance with all federal, state, and local regulations.

UN number 2929

UN proper shipping name Toxic liquid, flammable, n.o.s.

Hazards class 6.1; Packing Group III

Section 15

Plastics®

MSDS Number:
Revision Date:
Supersedes Date:

EDC001
03 SEP 2010
01 JUL 2010

15. REGULATORY INFORMATION

15.1 GHS Classification & Labeling Information:

15. Regulatory Information

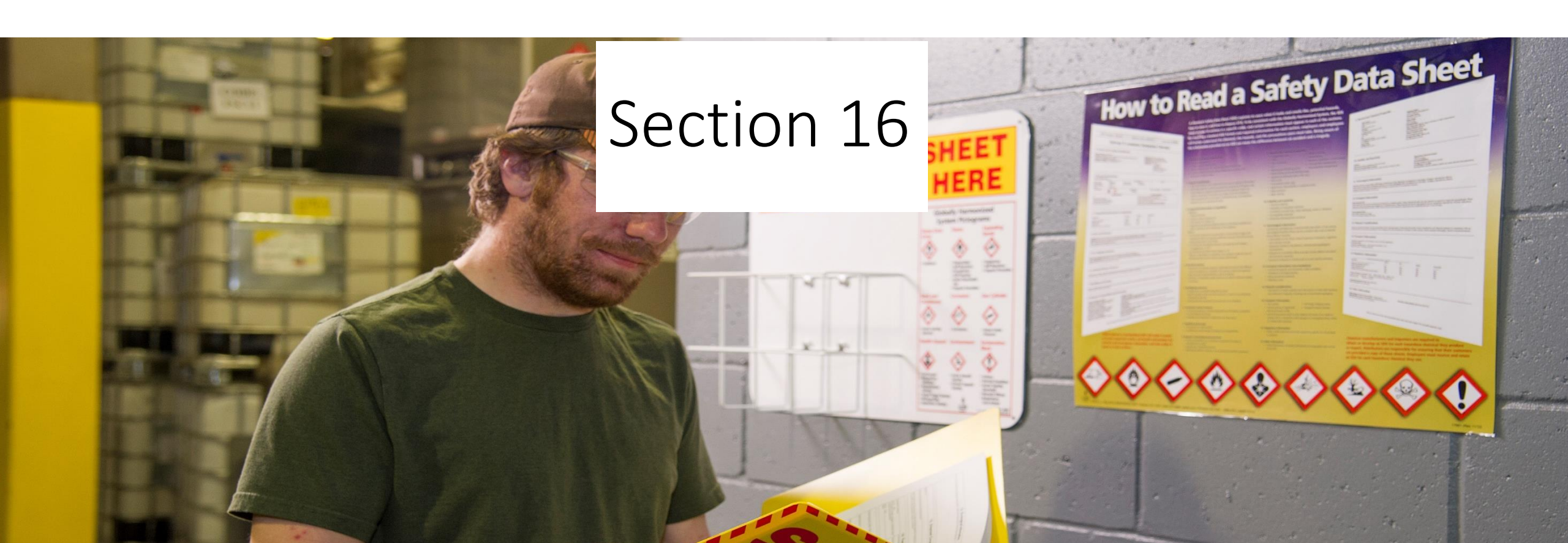
-----\Chemical Inventory Status - Part 1\-----

Ingredient	TSCA	EC	Japan	Australia
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Methylene Chloride (75-09-2)	Yes	Yes	Yes	Yes
Ethyl Alcohol (64-17-5)	Yes	Yes	Yes	Yes
Acetic Acid (64-19-7)	Yes	Yes	Yes	Yes
Paraffinic Petroleum Distillates (64742-65-0)	Yes	Yes	No	Yes

Chemical Weapons Convention: No TSCA 12(b): Yes CDTA: No
SARA 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No
Reactivity: No (Mixture / Liquid)

Australian Hazchem Code: None allocated.

Poison Schedule: None allocated.



Section 16

16. Other Information

NFPA Ratings: Health: **3** Flammability: **1** Reactivity: **0**

HMIS Ratings: Health: **3** Flammability: **1** Physical Hazard: **0**

This SDS was prepared by U. R. Chemical.

Revision Information: Revised 05/27/12

Questions?