

Hazard Communication Right-to-Know

**Farmingdale
State College**
State University of New York

Introduction

Jeff Carter, Environmental Health & Safety Officer

- Employed in the environmental industry since 2001
- Worked for the following EH&S programs:
 - Massachusetts Institute of Technology (M.I.T.)
 - Harvard University
 - Brandeis University
 - Massachusetts General Hospital (MGH)
 - Mount Sinai Medical Center (MSMC)
 - New York Medical College (NYMC)
 - Metropolitan Transportation Authority (MTA)
 - Stony Brook University
- Certified Hazardous Materials Manager (CHMM)
- Certified Environmental Auditor (CEA)
- Master of Professional Studies (MPS) in Environmental Management

Introduction (cont.)

Active Member of the following affiliations:

- American Society of Safety Engineers (ASSE)
- Campus Safety, Health, and Environmental Management Association (CSHEMA)
- SUNY Environmental Health & Safety Association of N.Y., Inc. (SEHSA)
- Homeland Security Task Force

Training:

- OSHA HAZWOPER
- U.S. DOT
- U.S. EPA and NYS DEC RCRA

Why am I here?



Purpose

Mandated by:

- OSHA under HazCom Standard 29CFR Part 1910.1200
- Article 28 of the New York State Labor Law
- Title 12 of the New York Consolidated Codes and Rules ("the regs"), sections 820.1 through 820.7

Intent:

- Employees have *both* a need and a right to know the hazards and identities of the chemicals to which they are exposed and the necessary protective measures to prevent injury or illness.

NYS Employees can file complaints to either:

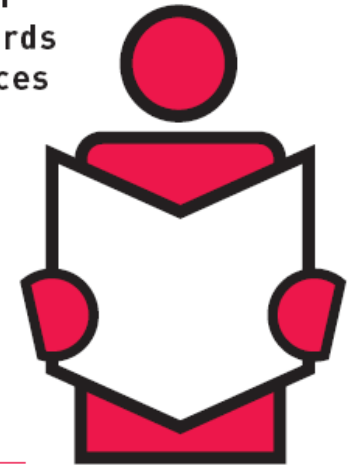
- NYS Attorney General's Office
- Website: www.ag.ny.gov
- 300 Motor Parkway
Hauppauge, NY 11788-5127
- Ph. (631) 231-2400
- New York State Department of Labor's Public Employee Safety and Health ("PESH") Bureau
- Website: http://labor.ny.gov/workerprotection/safetyhealth/DOSH_PESH.shtm
- 400 Oak Street, Suite 101
Garden City, NY 11530
- Ph. (516)228-3970.

YOU HAVE A RIGHT TO KNOW!

Your employer must inform you of the health effects and hazards of toxic substances at your worksite.

Learn all you can about toxic substances on your job.

For more information, contact:



Name _____

Location & Phone Number _____

THE RIGHT TO KNOW LAW WORKS FOR YOU.
NEW YORK STATE DEPARTMENT OF HEALTH

2704

478

Right to Know Responsibilities

MANUFACTURERS Proper labels on products and provide SDS information

EMPLOYEE RIGHTS

- To submit a written request for information
- Refuse to work with toxic substance if no reply is given within 72 hours
- Obtain access to written HazCom Right-to-Know program
- Cannot be forced to waive any rights as a condition of employment

EMPLOYER RESPONSIBILITIES

- Must inform you of the health effects and hazards of toxic substances at your work area
- Notify you of your right to request information
- Provide written information within 72 hours
- Provide education and training (upon initial appointment, annually*, when new hazards are introduced)
- Maintain SDS information
- Maintain exposure records
- Maintain labeling system

Your “Rights”

- Section 820.4(f)(2) of the regs requires that trainees (you all) be informed that they (you) have the "right not to be discharged, disciplined, penalized, or discriminated against for exercising any right" under the Right to Know laws.
- Section 820.4(f)(4) requires that you be informed about your right to examine and to copy your exposure records.



Man's death after drinking antifreeze is probed

ROME — State police are investigating the death of a self-employed cattle dealer who died after apparently drinking from a soft-drink bottle that contained antifreeze.

Family members of Moses Asker, 37, of Rome, found the poisonous green substance in a bottle in the victim's vehicle, officials said. Police have said they don't believe the man was a victim of product tampering.

Asker died Sunday night at Faxton-St. Luke's Healthcare in the Utica suburb of New Hartford, 43 miles east of Syracuse. He had been on life support for several days, state police said.

A friend who was with Asker at a cattle auction in Central Bridge, 28 miles west of Albany in Schoharie County, drove him to Ilion Urgent Care about 7:45 p.m. on Aug. 14, officials said.

—Associated Press



10 kids drink wiper fluid at Arkansas day care

LITTLE ROCK, Ark. — Ten children at a day care center drank windshield wiper fluid after a staffer served it from a container mistaken for Kool-Aid and placed in a refrigerator, police said Friday.

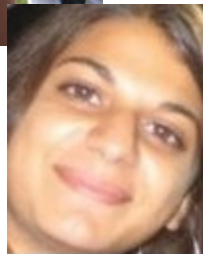
Doctors estimate the children, ages 2 to 7, drank about an ounce of the blue fluid late Thursday afternoon before realizing it tasted wrong, said Laura James, a pediatric pharmacologist and toxicologist at Arkansas Children's Hospital in Little Rock.

Only one child remained hospitalized Friday morning, after blood samples showed "measurable levels" of methanol, a highly toxic alcohol that can induce comas and cause blindness, officials said.

The day care's operator, Carolyn Bynum, gave up her license.

— *Associated Press*

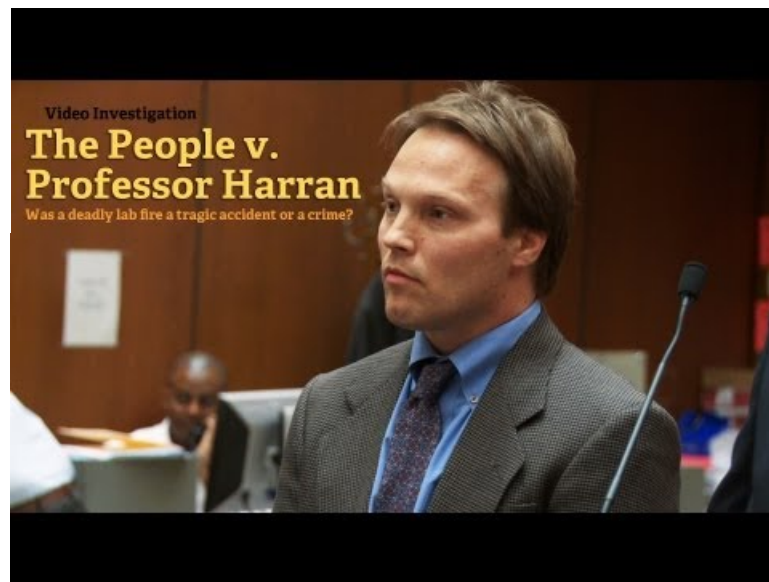
Sheharbano "Sheri" Sangji



UCLA Fined for Fatal Lab Explosion

Untrained young aide also lacked protective gear, OSHA finds

May 5, 2009 5:05 AM CDT

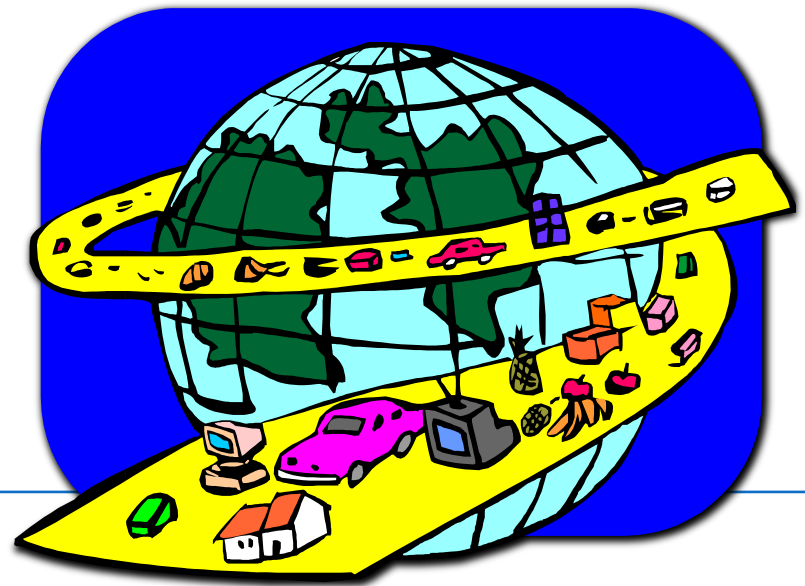


Employers Who “Use” Chemicals

Are responsible for the following as part of a compliant HazCom program:

- Written Hazard Communication Plan / Program
- Providing Employee Training
- Chemical Inventory System
- Maintaining MSDSs (now SDS's under GHS) and providing Right-to-Know access to employees
- Ensuring proper use of Labels and Warnings

**NEW
IMPROVED!**



Globally Harmonized System (GHS)

“Revising OSHA's Hazard Communication Standard will improve the quality and consistency of hazard information, making it safer for workers to do their jobs and easier for employers to stay competitive.”

Summary of Changes

- Revised 1994 Haz Com Standard (HCS) (last major update)
- Goal is to be consistent with United Nations Globally Harmonized System (GHS)
- Terminology Changes:
 - Hazard Determination → Hazard Classification
 - Evaluate → Classify
 - MSDS → SDS

In a nutshell...

- New look to labels.
- New pictograms on labels.
- Standardized Safety Data Sheets.
 - Better Safety Data Sheet information.



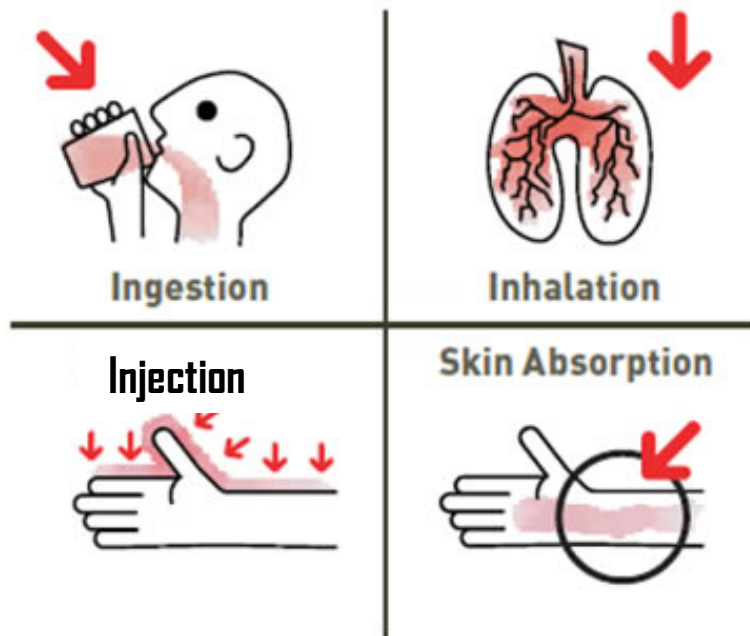
More Consistent Language

What do you need to protect yourself?



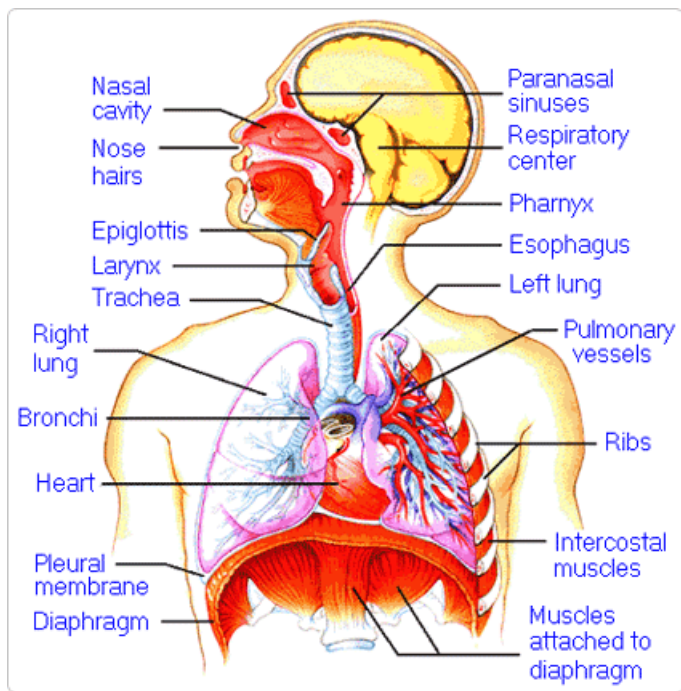
Things that haven't changed:

- Chemicals can only cause health effects when they come into contact with your body.



- **Inhalation**
- **Ingestion**
- **Absorption**
- **Injection**

Inhalation

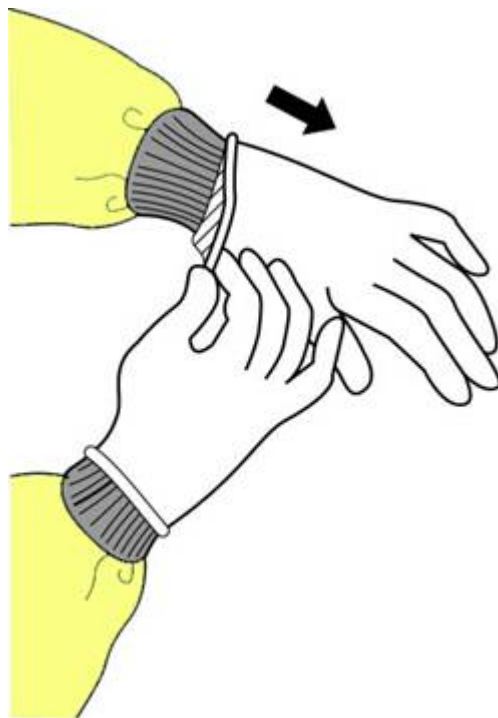


Ingestion



Skin Contact/Absorption

- Skin irritation or injury
- Skin absorption (some things are absorbed through the skin)



Injection



Acute vs. Chronic Toxicity

- **Acute** – effects appear promptly after exposure, usually within 24 hours
- **Chronic** – delayed effects following repeated, long duration exposure (often irreversible)
- The longer you are exposed to a chemical, the more likely you are to be affected by it.
- Chemical exposure which continues over a long period of time can be particularly hazardous because some chemicals can accumulate and persist in the body and/or because the body does not have a chance to repair the damage.



Additive Effects

$$2 + 2 = 4$$



Additive Effect - This action occurs when the combined effect of two or more chemicals is equal to the sum of the effect of each agents given alone (they do not interact in a direct way); for example:

$$2 + 2 = 4$$

This effect is the most common when two chemicals are given together.

Synergistic Effects



$$2 + 2 >> 4$$



(maybe 10 times or more)

A **synergistic effect** is the situation where the combined effect of two chemicals is much greater than the sum of the effects of each agent given alone, for example:

$2 + 2 >> 4$ (maybe 10 times or more)

An example of synergism is the increased risk of developing lung cancer caused by exposures to both cigarette smoking and asbestos. By either smoking one pack of cigarettes per day or being heavily exposed to asbestos, you may increase your risk of lung cancer to five to ten times higher than someone who does neither. But if you smoke a pack a day and are heavily exposed to asbestos, your risk may be 50 times higher than someone who does neither.

Antagonistic Effects

$$4 + 6 < 10$$



Antagonism - Antagonism is the opposite of synergism. It is the situation where the combined effect of two or more compounds is less toxic than the individual effects; for example:

$$4 + 6 < 10$$

Antagonistic effects are the basis of many antidotes for poisonings or for medical treatments. For example, ethyl alcohol (ethanol) can antagonize the toxic effects of methyl alcohol (methanol) by displacing it from the enzyme that oxidizes the methanol.

Biological Threshold Level

Biological exposure indices are values based upon each chemical having a reasonably safe level of exposure below which significant illness, injury, or discomfort will seldom happen.

PEL - Permissible Exposure Levels

An exposure limit published and enforced by OSHA as a legal standard

TLV - Threshold Limit Value

A time-weighted average guideline concentration under which most people can work consistently for 8 hours a day for 40 hours with no harmful effects

Toxic Substance Retention



- Toxic substances may be retained and accumulated in the body
- Some toxic substances (like carcinogens) have no TLV
- The human body is unable to reverse the effects of some toxic substances

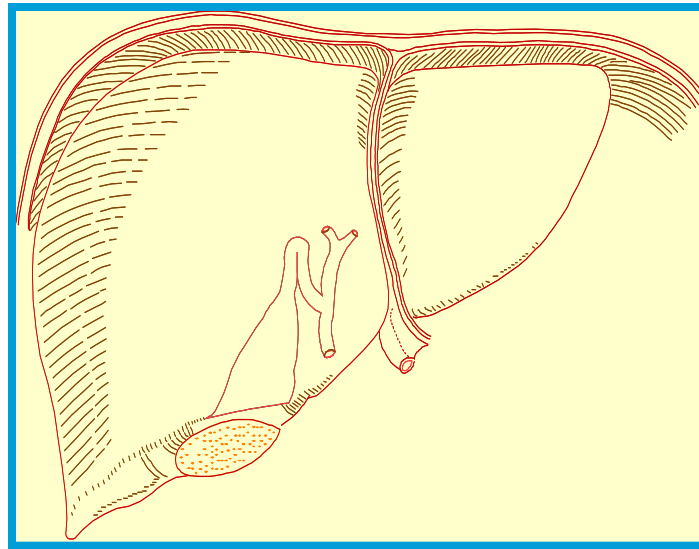


A large graphic featuring a target with a red outer ring, a white bullseye, and a blue inner ring. A grey dart with a yellow and green feather is shown hitting the center of the target. Overlaid on the target is the text "Target Organ Effects" in a large, bold, blue font with a white outline and a drop shadow.

Target Organ Effects

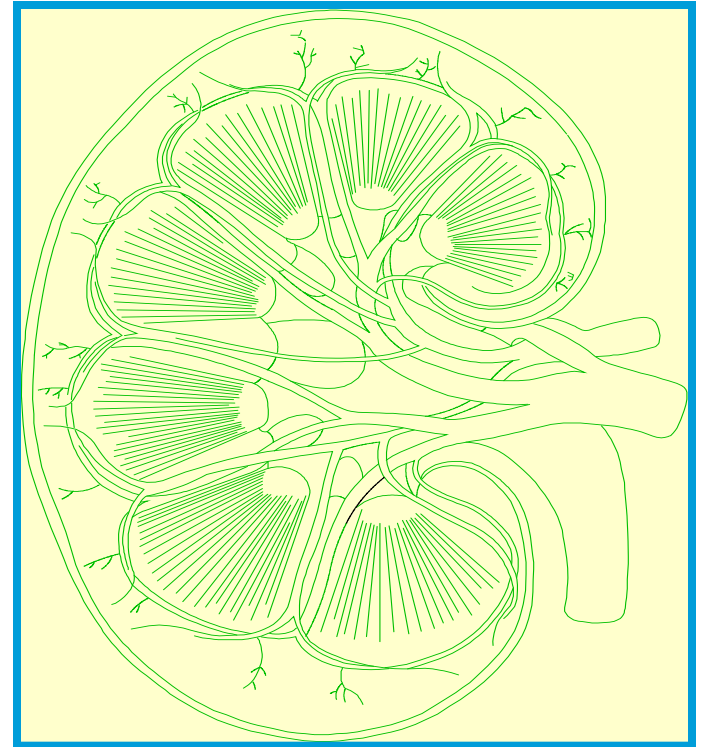
Hepatotoxins

- Chemicals which produce liver damage
- Signs and Symptoms: Jaundice, liver enlargement
- Chemicals: Carbon Tetrachloride, nitrosamines

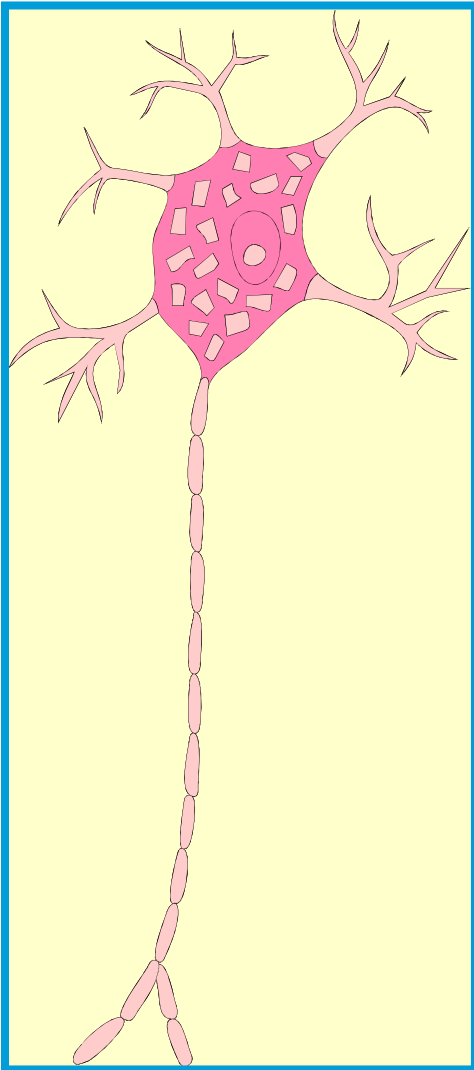


Nephrotoxins

- Chemicals which produce kidney damage
- Signs and Symptoms: Edema (swelling)
- Chemicals: Halogenated Hydrocarbons, uranium



Neurotoxins



- Chemicals which produce their primary toxic effects on the nervous system
- Signs and Symptoms: Narcosis (unconsciousness), behavioral changes, decreased motor function
- Chemicals: Mercury, carbon disulfide, lead

Jeremy Piven Quits Broadway, "Extreme Mercury Toxicity"

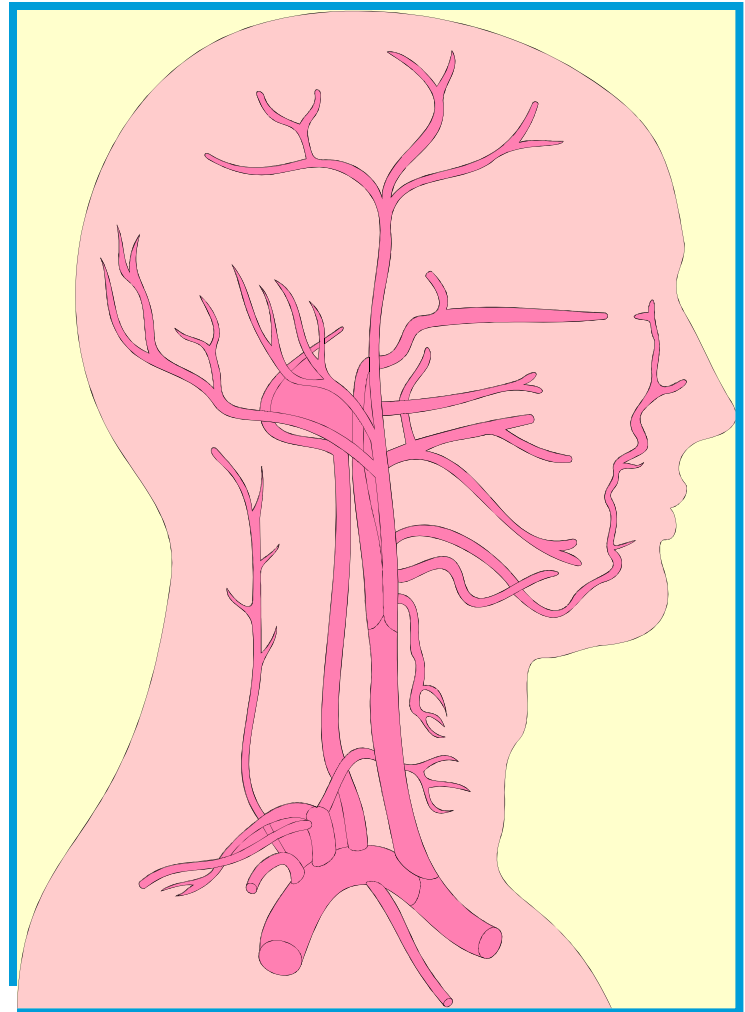
Variety, ET | December 18, 2008 02:49 PM

- The doctor says that Jeremy is suffering from extreme mercury toxicity. Colker tells ET that a major symptom of mercury poisoning is extreme fatigue. In addition, Jeremy began experiencing neuro-muscular dysfunction late last week, which led to extreme difficulty in lifting his arms and legs. Then, this past Sunday, he began feeling dizzy. Now, the doctors have ordered enforced rest. Jeremy spent three days in the hospital recently and the doctor tells us exclusively that he is no longer in New York.
- Colker tells ET that Jeremy has been an avid sushi eater for many years, regularly eating sushi twice in one day. He notes that Jeremy has also taken certain Chinese herbs, and that, in combination with the frequent sushi consumption, could have led to these elevated mercury levels. He informs us that a test revealed that Jeremy had the highest level of mercury that he has ever seen, which amounts to six times a healthy amount of mercury, in his system.



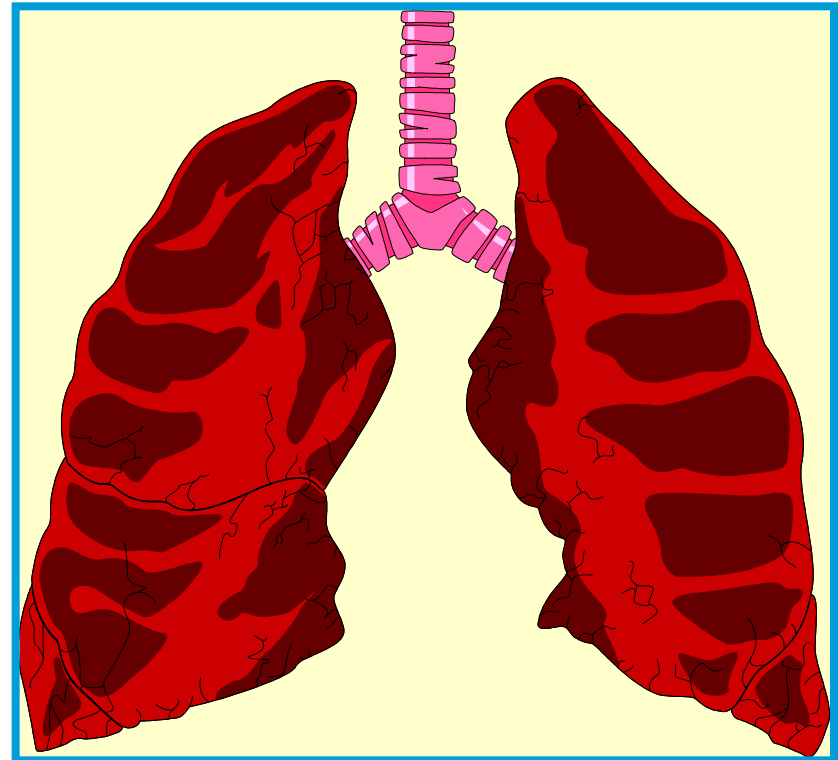
Hemotoxins - Agents which act on the blood

- Decrease hemoglobin function, deprive the body tissues of oxygen
- Signs and Symptoms: Cyanosis (“bluing”), loss of consciousness
- Chemicals: Carbon monoxide, cyanides



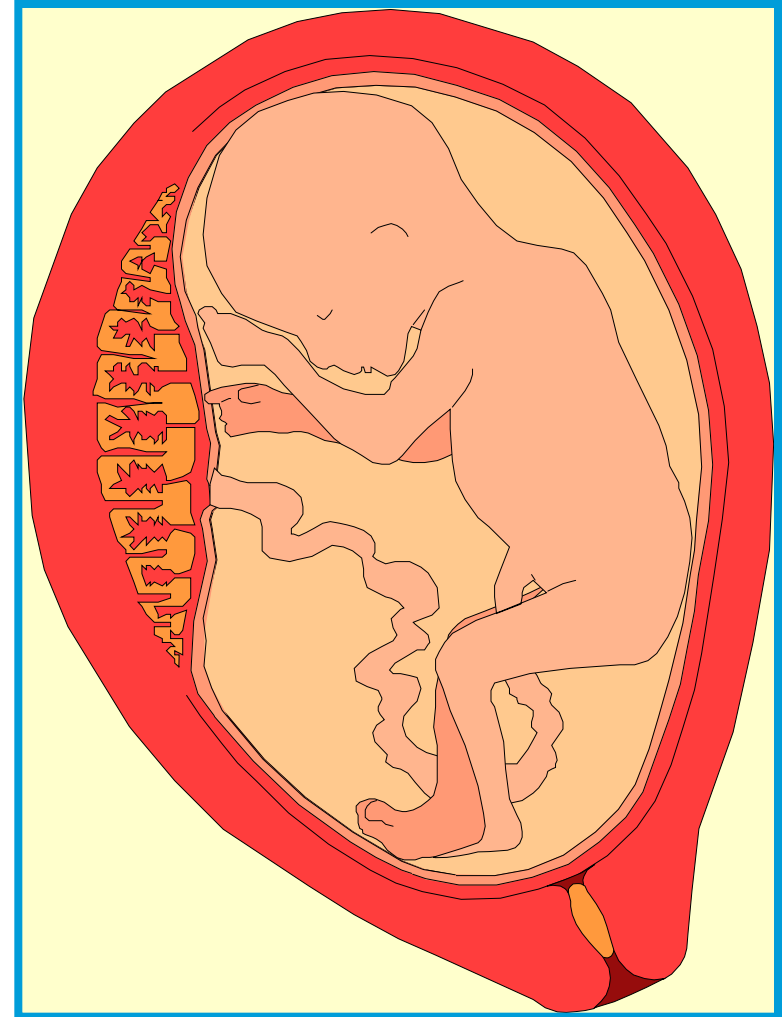
Agents which damage the lungs

- Chemicals which damage pulmonary tissue
- Signs and Symptoms:
Cough, tightness in the chest, loss of breath
- Chemicals: Asbestos, silica



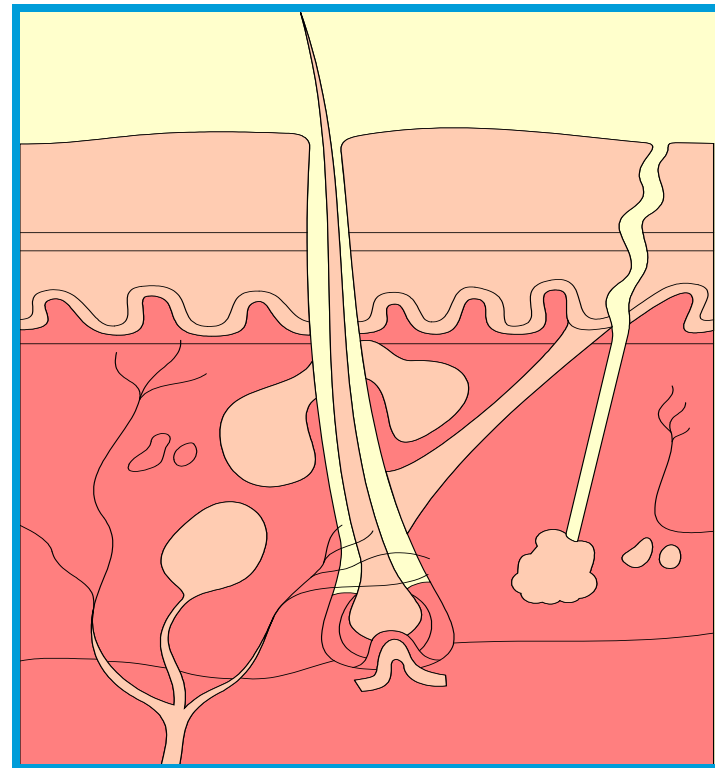
Reproductive toxins

- Chemicals which damage reproductive capabilities
- Includes chromosomal damage (mutations) and damage to fetuses (teratogenesis)
- Signs and Symptoms: Birth defects, sterility
- Chemicals: Lead



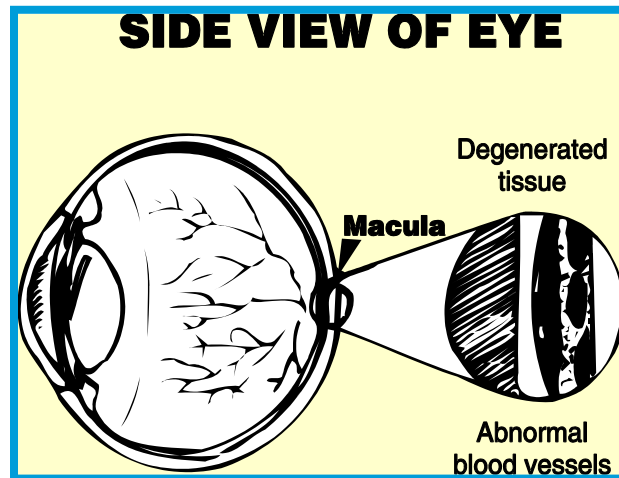
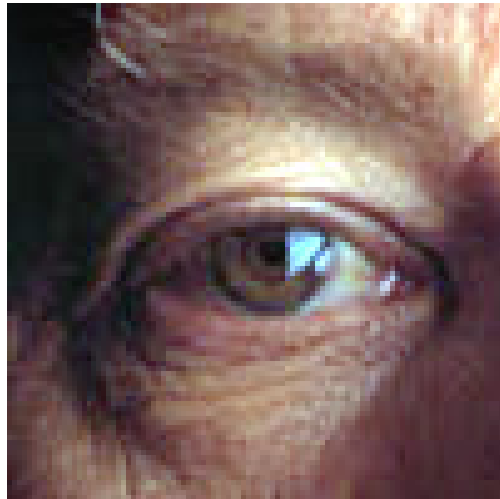
Cutaneous hazards

- Chemicals which effect the dermal layer of the body
- Signs and Symptoms:
Defatting of the skin, rashes, irritation
- Chemicals: Ketones, chlorinated compounds

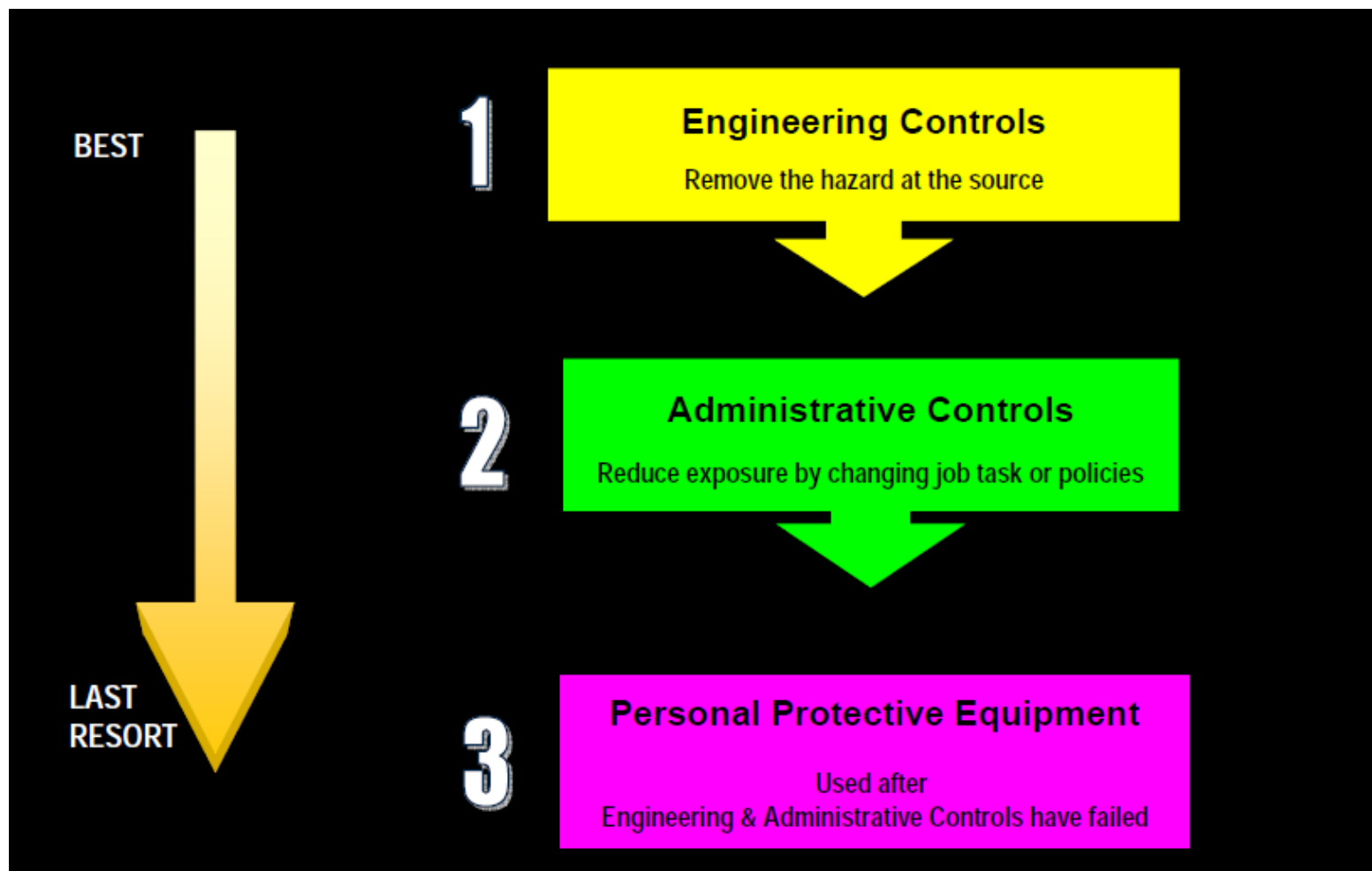


Eye hazards

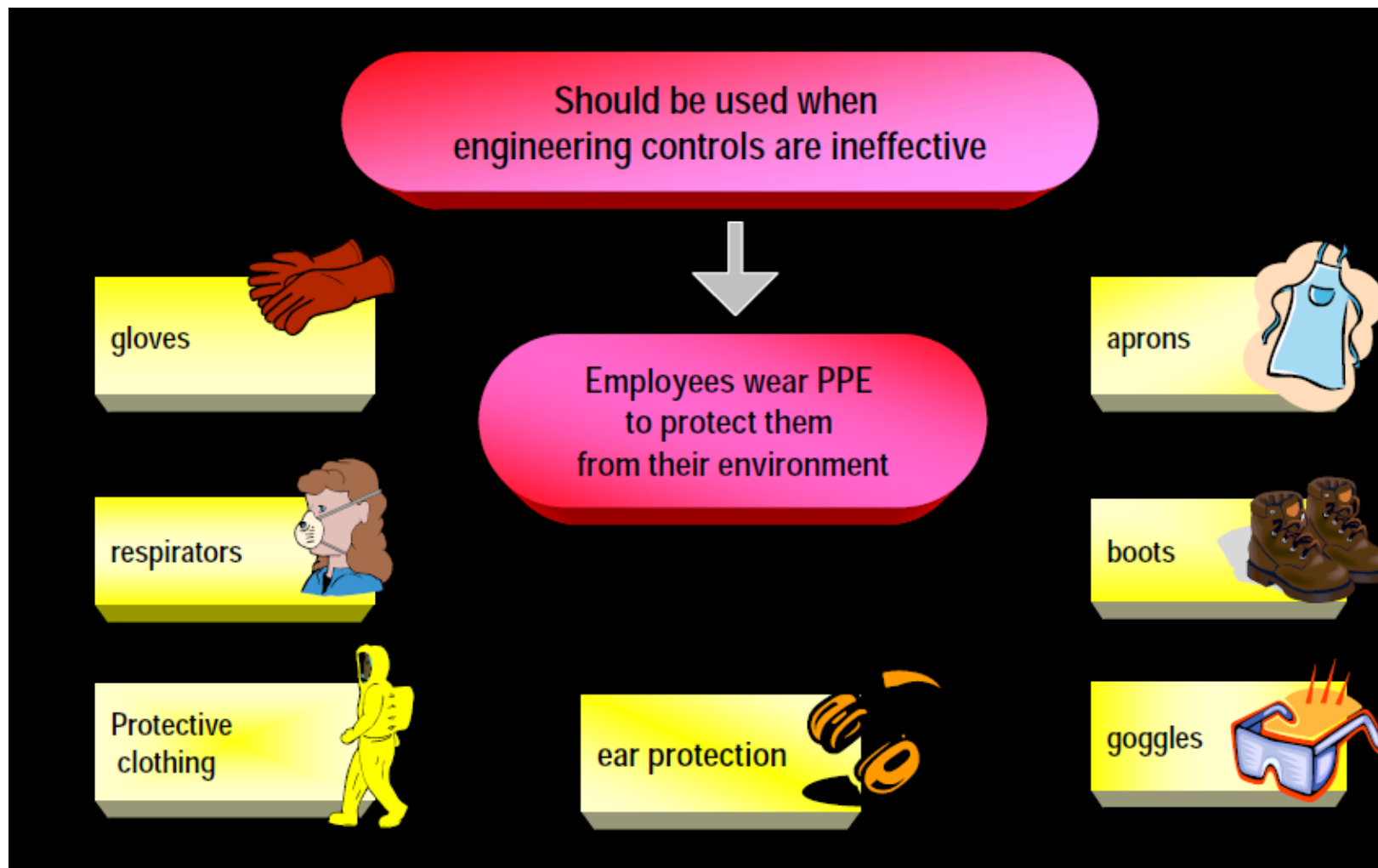
- Chemicals which affect the eye or visual capacity
- Signs and symptoms: Conjunctivitis, corneal damage, blurred vision, burning or irritation
- Chemicals: Solvents, corrosives



Methods of Controlling Exposure



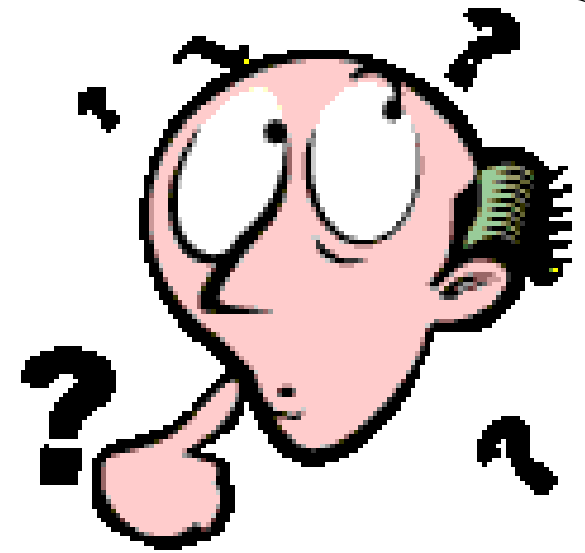
Personal Protective Equipment



Record keeping

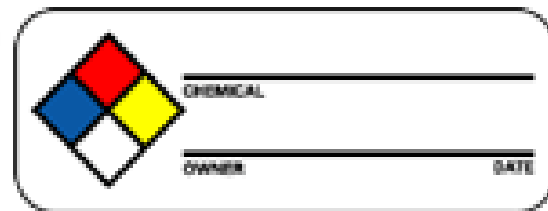
- Farmingdale State College must keep records of chemical/toxic exposures for the duration of your employment and 40 years after
- Maintain an inventory and SDS log of hazardous chemicals used at the work place
- Specify name, address and social security number for each employee exposed to one or more of toxic substances regulated by PESH, and keep this information for 40 years
- Keep a file of training materials indicating who was trained, when and by whom, and what was covered

How do I know what the hazards are?



- Labels
- MSDS/SDS
- Contact manufacturers
- NIOSH at www.cdc.gov/niosh/hhe, (800)356-4674 or (513)841-4428
- NIOSH's Division of Surveillance, Hazard Evaluations, and Field Studies, 4676 Columbia Parkway, Mailstop R12, Cincinnati, Ohio 45226
- EPA at www.epa.gov/epahome/hotline.htm, (202)554-1404, or the EPA's Information Resources Center at 1200 Pennsylvania Avenue N.W., Washington, D.C. 20004
- The NYSDOH at www.health.ny.gov, 800-458-1158, Corning Tower, Empire State Plaza, Albany, New York 12237

Unlabeled is Unacceptable!



Labeling Chemicals

- Product name
- Signal word:

⚠ DANGER

indicates an imminently hazardous situation which, if not avoided, **will** result in serious injury or death. **This signal word is to be limited to the most extreme situations.**


⚠ WARNING

indicates a potentially hazardous situation which, if not avoided, could result in a lesser degree of serious injury or death than those identified by the signal word DANGER.

⚠ CAUTION

indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It may also be used to alert against unsafe practices.

- Precautionary measures
- Instructions in case if contact or exposure
- Fire instructions
- First aid instructions

ACETONE
(Dimethyl Ketone, CAS 67-64-1) 

DANGER ! EXTREMELY FLAMMABLE

Acute: **CAUSES IRRITATION OF EYES, SKIN AND MUCOUS MEMBRANES.**
Chronic: **EXPOSURE TO LIQUID MAY CAUSE DERMATITIS.**
Keep away from heat, sparks and flame. Avoid contact with eyes, skin, and clothing.
Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.


FIRST AID:
IMMEDIATELY CALL POISON CONTROL CENTER OR HOSPITAL EMERGENCY ROOM.

IF CONTACTED: Immediately flush eyes with plenty of water for at least 15 minutes. Wash skin with soap and plenty of water. GET MEDICAL ATTENTION for eyes. Wash clothing before reuse.
IF INHALED: Remove to fresh air. If not breathing, give artificial resuscitation.
IF SWALLOWED: Give water to dilute. CONSULT POISON CONTROL CENTER OR HOSPITAL EMERGENCY ROOM. Never give anything by mouth to an unconscious or convulsive person.

HCL 530-1

SuperClean Anything Cleaner

MSDS #: 84945 PPE: Gloves
Mix: 1oz./32 oz.
Super Chemical Corporation
123 Chemical Drive
New York, NY 34344
Emergency Phone: 800-555-5555



Target: Lungs, Stomach
Contents:
Sodium Chloride, Benzene, Petroleum

Directions:
IF SWALLOWED: Induce vomiting, contact physician.
IF SKIN CONTACT: Wash thoroughly with cold water and soap, contact physician if irritation occurs.

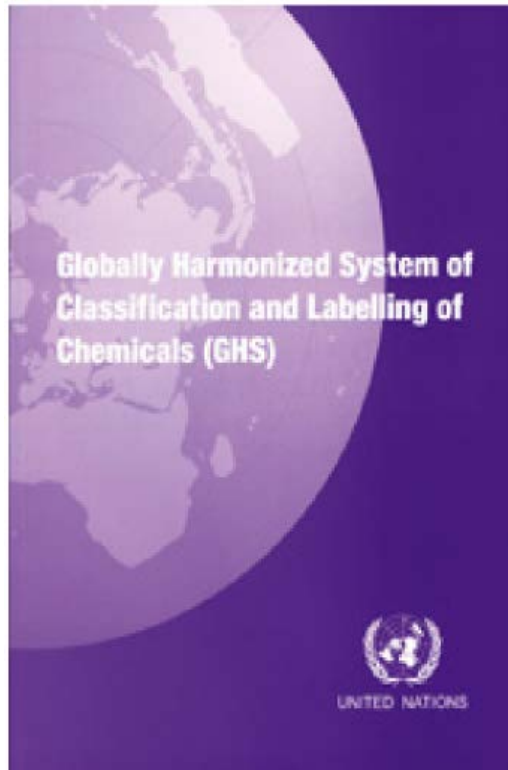
ABC Cleaning Corporation

Introducing...



The **GHS**
Globally Harmonized System
of Classification and Labeling of Chemicals

What is GHS?



The GHS is an acronym for *The Globally Harmonized System of Classification and Labeling of Chemicals*.

The GHS is a system for standardizing and harmonizing the classification and labeling of chemicals. It is a logical and comprehensive approach to:

- Defining health, physical and environmental hazards of chemicals;
- Creating classification processes that use available data on chemicals for comparison with the defined hazard criteria; and
- Communicating hazard information, as well as protective measures, on labels and Safety Data Sheets (SDS).

GHS Overview

- Justification
 - Label requirements differ, requiring multiple labels for the same product
 - Hazard definitions are not consistent
 - Toxicity, Flammability
 - Globally over 100 diverse hazard communication regulations for their products
 - Regulatory compliance is complex and costly
 - Barrier to international trade in chemicals










Why is the GHS Important?





Why is the GHS Important – The Vision



Global Harmonized System (GHS) Pictograms and Hazard Classes

GHS Pictograms and Hazard Classes		
 <ul style="list-style-type: none"> • Oxidizers 	 <ul style="list-style-type: none"> • Flammables • Self reactives • Pyrophorics • Self-Heating • Emits flammable gas • Organic peroxides 	 <ul style="list-style-type: none"> • Explosives (Divisions 1.1 to 1.4 only) • Self reactives • Organic peroxides
 <ul style="list-style-type: none"> • Acute toxicity (severe) 	 <ul style="list-style-type: none"> • Corrosive to metals • Skin corrosion • Serious eye damage/eye irritation 	 <ul style="list-style-type: none"> • Gases under pressure
 <ul style="list-style-type: none"> • Carcinogen • Respiratory sensitizer • Reproductive toxicity • Target Organ toxicity • Mutagenicity • Aspiration toxicity 	 <ul style="list-style-type: none"> • Aquatic Toxicity (acute) • Aquatic Toxicity (chronic) 	 <ul style="list-style-type: none"> • Irritant • Dermal sensitizer • Acute toxicity (harmful)

New GHS Labeling Requirements

2  **1 Sulfuric Acid** **2** 

3 Danger! May be harmful if swallowed. Causes severe skin burns and eye damage. **4** Fatal if inhaled. Harmful to aquatic life.

Do not breathe dust/fume/gas/mist/vapors/spray. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection.

5
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.


















In case of fire Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

See Material Safety Data Sheet for further details regarding safe use of this product.

6 Sigma-Aldrich 3050 Spruce Street SAINT LOUIS MO 63103 USA Telephone : +18003255832

1 Product Identifier	4 Hazard Statements
2 Pictograms	5 Precautionary Statements
3 Signal word, "Danger!"	6 Supplier Information

GHS Comparison Chart

OLD			NEW		
Symbols	Description	GHS-Symbols	Description	Hazard statement examples	
	E Explosive		GHS01 Exploding bomb	Explodes due to fire, shock, friction or heat; danger due to fire, blast and projectiles.	
	F+ Extremely flammable F Highly flammable		GHS02 Flame	Flammable; catches fire spontaneously if exposed to air; in contact with water releases flammable gases which may ignite spontaneously.	
	O Oxidizing		GHS03 Flame over circle	May cause fire or explosion; strong oxidizer.	
No equivalent			GHS04 Gas cylinder	Contains gas under pressure; may explode if heated; contains refrigerated gas; may cause cryogenic burns or injury.	
	C Corrosive		GHS05 Corrosion	May be corrosive to metals; causes severe skin burns and eye damage.	
	T+ Very toxic T Toxic		GHS06 Skull and crossbones	Small quantities are harmful or fatal.	
	Xn Harmful	No direct equivalent			
	Xi Irritant				
No equivalent			GHS07 Exclamation mark	Harmful, irritates eyes, skin or respiratory system; large quantities are fatal.	
No direct equivalent			GHS08 Health hazard	Causes allergic reactions; may cause cancer, may cause genetic defects; may damage fertility or the unborn child; causes damage to organs.	
	N Dangerous for the environment		GHS09 Environment	Harmful, toxic or very toxic to aquatic life with long lasting effects.	

Health Hazard



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

Carcinogens cause cancer.

Mutagens cause harm to fetuses.

Reproductive toxins cause problems in pregnancy and/or getting pregnant (men and women).

Respiratory Sensitizer means you may have a heightened reaction on second exposure.

Target organ is the organ that is most effected.

Aspiration toxic means it irritates or harms when you inhale the liquid or solid.

Flame



- **Flammables**
- **Pyrophorics**
- **Self-Heating**
- **Emits Flammable Gas**
- **Self-Reactives**
- **Organic Peroxides**

- **Flammable** means vapors burn.
- **Pyrophorics** will ignite spontaneously when exposed to air.
- **Organic peroxides** can sometimes form explosive compounds by themselves.
- **Self igniters/heaters** get warm over time with access to air.

Exclamation Mark



- **Irritant (skin and eye)**
- **Skin Sensitizer**
- **Acute Toxicity (harmful)**
- **Narcotic Effects**
- **Respiratory Tract Irritant**
- **Hazardous to Ozone Layer (Non-Mandatory)**

- **Irritants** irritate.
- **Sensitizers** cause more severe second-exposure reactions.
- **Acute** – short term
- **Chronic** – long term

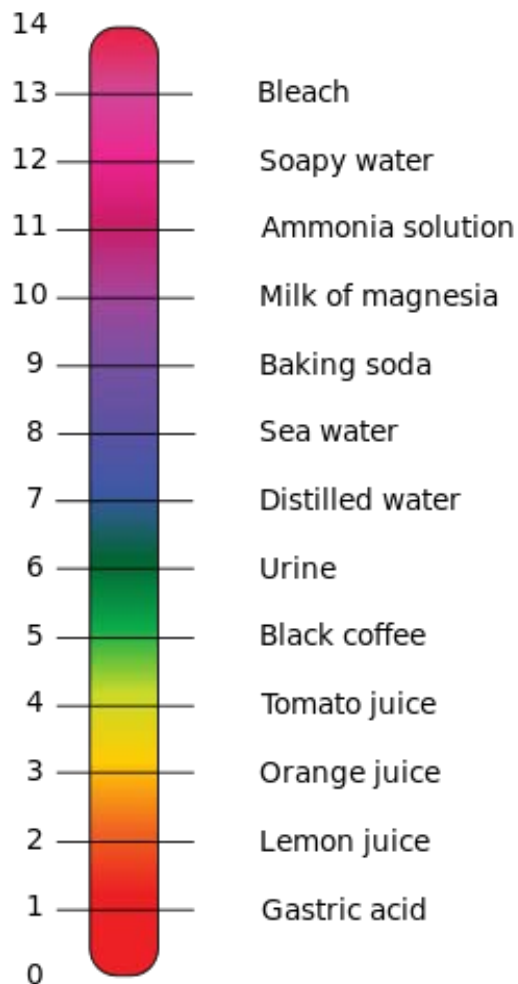
Gas Cylinder



- **Gases Under Pressure**

- Gas under pressure can release extremely quickly — causing mechanical hazards and/or releasing large volumes of gas that can displace air (suffocation potential) or be toxic.





Corrosion



- **Skin Corrosion/ Burns**
- **Eye Damage**
- **Corrosive to Metals**

Exploding Bomb



- **Explosives**
- **Self-Reactives**
- **Organic Peroxides**

Flame Over Circle



- **Oxidizers**

- **Oxidizers** can cause or contribute to fire in other materials.

Environment (Non-Mandatory)



- **Aquatic Toxicity**

Skull and Crossbones



- **Acute Toxicity
(fatal or toxic)**

Material Safety Data Sheet



- The SDS is considered the most important way in which chemical information is provided to employers and employees.

SDSs:

- Must be readily accessible to employees during their work shift
- Are typically kept in a centralized location
- Must be updated as new information becomes available
- All must know where the SDS information is located
- All must know how to search for SDS (hard copies or online)



MSDS Binder and/or Electronic Database



MSDSonline[®]

EH&S Compliance Made Simple



Safety Data Sheet

Sample

Date Released 11/1/2011

*** Section 1 – Product and Company Identification ***

Manufacturer Information

Glendale Industries
350 N Orleans
Chicago, IL 60654

Phone: 312-881-2000
Emergency# 1-888-362-2007

*** Section 2 – Hazard identification ***

GHS Classification

Oxidizing solids – Category 2

Hazard Statements

May intensify fire, oxidizer
Toxic if swallowed
Fatal in contact with skin
Fatal if inhaled

GHS LABEL ELEMENTS

Symbols(s)



Signal Word

Danger

Precautionary Statements

Prevention
Wash thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing
Wear eye protection/face protection
Do not breathe dust/fume/gas/mist/vapours/
Use only outdoors or in well-ventilated area

Hazard Communication Safety Data Sheets

The Hazard Communication Standard (HCS) requires chemical manufacturers, distributors, or importers to provide Safety Data Sheets (SDSs) (formerly known as Material Safety Data Sheets or MSDSs) to communicate the hazards of hazardous chemical products. As of June 1, 2015, the HCS will require new SDSs to be in a uniform format, and include the section numbers, the headings, and associated information under the headings below:

Section 1, Identification includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; restrictions on use.

Section 2, Hazard(s) identification includes all hazards regarding the chemical; required label elements.

Section 3, Composition/information on ingredients includes information on chemical ingredients; trade secret claims.

Section 4, First-aid measures includes important symptoms/effects, acute, delayed; required treatment.

Section 5, Fire-fighting measures lists suitable extinguishing techniques, equipment; chemical hazards from fire.

Section 6, Accidental release measures lists emergency procedures; protective equipment; proper methods of containment and cleanup.

Section 7, Handling and storage lists precautions for safe handling and storage, including incompatibilities.

(Continued on other side)

Hazard Communication Safety Data Sheets

Section 8, Exposure controls/personal protection

lists OSHA's Permissible Exposure Limits (PELs); Threshold Limit Values (TLVs); appropriate engineering controls; personal protective equipment (PPE).

Section 9, Physical and chemical properties lists the chemical's characteristics.

Section 10, Stability and reactivity lists chemical stability and possibility of hazardous reactions.

Section 11, Toxicological information includes routes of exposure; related symptoms, acute and chronic effects; numerical measures of toxicity.

Section 12, Ecological information*

Section 13, Disposal considerations*

Section 14, Transport information*

Section 15, Regulatory information*

Section 16, Other information, includes the date of preparation or last revision.

*Note: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15 (29 CFR 1910.1200(g)(2)).

Employers must ensure that SDSs are readily accessible to employees.

SECTION 1: Identification of Substance and Supplier

SAFETY DATA SHEET

Weld-On AA3 Low voc Solvent Cement for Bonding Acrylics

SECTION 1-IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME: Weld-On AA3 Low VoC Solvent Cement for Acrylic
PRODUCT USE: Low VOC Solvent Cement for Bonding Acrylics
SUPPLIER:

Manufacturer: IPW Corporation
 17109 South Main Street, Carson, CA 90248-3127
 P.O. Box 379, Gardena, CA 90247-0379
 Tel. 1-310-898-3300

EMERGENCY: Transportation: Tel. 800-424-9300, 703-527-3887 CHEMTREC (International)

Medical: Tel. 800-451-8346

SECTION 2-HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

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

GHS LABEL:

SECTION 1-IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER AND UNDERTAKING

SECTION 2:

Hazards Identification

PRODUCT NAME: Weld-On AA3 Low VoC Solvent Cement for Acrylic

PRODUCT USE: Low VOC Solvent Cement for Bonding Acrylics

Manufacturer: IPW Corporation
 17109 South Main Street, Carson, CA 90248-3127
 P.O. Box 379, Gardena, CA 90247-0379
 Tel. 1-310-898-3300

EMERGENCY: Transportation: Tel. 800-424-9300, 703-527-3887 CHEMTREC (International)

Medical: Tel. 800-451-8346

SECTION 2-HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

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

GHS LABEL:

OR

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

SECTION 3-COMPOSITION/INFORMATION ON INGREDIENTS

FSC Haz Comm & RTK Training

	CAS#	EINECS#	REACH Pre-registration Number	CONCENTRATION % by Weight
Methylene Chloride* (dichloromethane)	75-09-2	200-838-9	Under development	75-90
Trichloroethylene*	79-01-6	201-167-4	Under development	5-15

GHS LABEL:

OR

SECTION 3:

CLASSIFICATION: CLASS D, DIVISION 1

Composition and Information On Ingredients

H320: Causes eye irritation

H351: Suspected of causing cancer

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

SECTION 3-COMPOSITION/INFORMATION ON INGREDIENTS

	CAS#	EINECS#	REACH Pre-registration Number	CONCENTRATION % by Weight
Methylene Chloride* (dichloromethane)	75-09-2	200-838-9	Under development	75-90
Trichloroethylene*	79-01-6	201-167-4	Under development	5-15
Methyl Methacrylate Monomer*, Stabilized (MMA)	80-62-6	201-297-1	05-2116297731-37-0000	0-1

All of the constituents of this adhesive product are listed on the TSCA inventory of chemical substances maintained by the US EPA, or are exempt from that listing.

*Indicates this chemical is subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40CFR372)

SECTION 4-FIRST AID MEASURES

Contact with eyes: Flush eyes immediately with plenty of water for 15 minutes and seek medical advice immediately.

Skin contact: Wash skin with soap and water. If irritation develops, get medical attention.

Inhalation: Remove to fresh air. If breathing is stopped, give artificial respiration. If breathing is difficult, give oxygen. Seek medical advice.

Ingestion: Do not induce vomiting. Seek medical advice immediately.

SECTION 5-FIREFIGHTING MEASURE

Suitable Extinguishing Media:	Water fog or fine spray, carbon dioxide, dry chemical or foam.	HMIS	NFPA	0-Minimal
Unsuitable Extinguishing Media:	Dry chemical powder.	Health	2	1-Slight
Exposure Hazards:	Inhalation and dermal contact.	Flammability	1	2-Moderate
Combustion Products:	Hydrogen chloride, trace amounts of chlorine, phosgene.	Reactivity	0	3-Serious
Protection for Firefighters:	Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing.		0	4-Severe

FSC Haz Comm & RTK Training

GHS LABEL:

OR

SECTION 4:

Signal Word: Warning
Hazard Classification: CLASS D, DIVISION 1

First-Aid Measures

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

Precautionary Statements

P273: 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

SECTION 3-COMPOSITION/INFORMATION ON INGREDIENTS

	CAS#	EINECS#	REACH Pre-registration Number	CONCENTRATION % by Weight
Methylene Chloride* (dichloromethane)	75-09-2	200-838-9	Under development	75-90
Trichloroethylene*	79-01-6	201-167-4	Under development	5-15
Methyl Methacrylate Monomer*, Stabilized (MMA)	80-62-6	201-297-1	05-2116297731-37-0000	0-1

All of the constituents of this adhesive product are listed on the TSCA inventory of chemical substances maintained by the US EPA, or are exempt from that listing.

*Indicates this chemical is subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40CFR372)

SECTION 4-FIRST AID MEASURES

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- Skin contact:** Wash skin with soap and water. If irritation develops, get medical attention.
- Inhalation:** Remove to fresh air. If breathing is stopped, give artificial respiration. If breathing is difficult, give oxygen. Seek medical advice.
- Ingestion:** Do not induce vomiting. Seek medical advice immediately.

SECTION 5-FIREFIGHTING MEASURE

Suitable Extinguishing Media:	Water fog or fine spray, carbon dioxide, dry chemical or foam.	HMIS	NFPA	0-Minimal
Unsuitable Extinguishing Media:	Dry chemical powder.	Health	2	1-Slight
Exposure Hazards:	Inhalation and dermal contact.	Flammability	1	2-Moderate
Combustion Products:	Hydrogen chloride, trace amounts of chlorine, phosgene.	Reactivity	0	3-Serious
Protection for Firefighters:	Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing.		0	4-Severe

SECTION 5:

Fire-Fighting Measures

Contact with eyes: Flush eyes immediately with plenty of water for 15 minutes and seek medical advice immediately.
Skin contact: Wash skin with soap and water. If irritation develops, get medical attention.
Inhalation: Remove to fresh air. If breathing is stopped, give artificial respiration. If breathing is difficult, give oxygen. Seek medical advice.
Ingestion: Do not induce vomiting. Seek medical advice immediately.

SECTION 5-FIREFIGHTING MEASURES

Suitable Extinguishing Media:	Water fog or fine spray, carbon dioxide, dry chemical or foam.				
Unsuitable Extinguishing Media:	Dry chemical powder.				
Exposure Hazards:	Inhalation and dermal contact.				
Combustion Products:	Hydrogen chloride, trace amounts of chlorine, phosgene.				
Protection for Firefighters:	Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing.				

	Health	2	2	1-Slight
	Flamability	1	1	2-Moderate
	Reactivity	0	0	3-Serious
				4-Severe

SECTION 6-ACCIDENTAL RELEASE MEASURES

Personal Precautions: Clear all personnel from area. Do not breathe vapors. Ventilate area of leak or spill. Wear protective equipment, positive pressure self contained or air supplied breathing apparatus. Follow confined space entry procedures.

Environmental Precautions: Prevent product or liquids contaminated with product from entering sewers, drains, soil or open water course.

Methods for Cleaning up: Mop or soak up immediately. Place in properly labeled metal containers.

Materials not to be used for clean up: Zinc, Aluminum, or plastic containers.

SECTION 7-HANDLING AND STORAGE

Handling: Avoid breathing of vapor, avoid contact with eyes, skin and clothing. Do not swallow. Use with adequate ventilation. Do not cut, drill, grind, weld or perform similar operations on or near empty containers. Vapors of this product are heavier than air and will collect in low areas. Do not eat, drink or smoke while handling.

Storage: Store in a dry place. Keep container tightly closed when not in use. Significant vapor pressures (>5psi) can be

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SECTION 8-PRECAUTIONS TO CONTROL EXPOSURE / PERSONAL PROTECTION

Exposure limits:	Component	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL:
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All of the constituents of this adhesive product are listed on the TSCA inventory of chemical substances maintained by the US EPA, or are exempt from that listing.

*Indicates this chemical is subject to the requirements of the Emergency Planning and Community Right-to-Know Act of 1986 (40CFR372)

SECTION 6:

Accidental Release Measures

Inhalation: Remove to fresh air. If breathing is stopped, give artificial respiration. If breathing is difficult, give oxygen. Seek medical advice.
Ingestion: Do not induce vomiting. Seek medical advice immediately.

SECTION 5-FIREFIGHTING MEASURES

Suitable Extinguishing Media: Water fog or fine spray, carbon dioxide, dry chemical or foam.
Unsuitable Extinguishing Media: Dry chemical powder.
Exposure Hazards: Inhalation and dermal contact.
Combustion Products: Hydrogen chloride, trace amounts of chlorine, phosgene.
Protection for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing.

Health	2	2	0-Minimal
Flamability	1	1	1-Slight
Reactivity	0	0	2-Moderate
			3-Serious
			4-Severe

SECTION 6-ACCIDENTAL RELEASE MEASURES

Personal Precautions: Clear all personnel from area. Do not breathe vapors. Ventilate area of leak or spill. Wear protective equipment. positive pressure self contained or air supplied breathing apparatus. Follow confined space entry procedures.
Environmental Precautions: Prevent product or liquids contaminated with product from entering sewers, drains, soil or open water course.
Methods for Cleaning up: Mop or soak up immediately. Place in properly labeled metal containers.
Materials not to be used for clean up: Zinc, Aluminum, or plastic containers.

SECTION 7-HANDLING AND STORAGE

Handling: Avoid breathing of vapor, avoid contact with eyes, skin and clothing Do not swallow. Use with adequate ventilation. Do not cut, drill grind, weld or perform similar operations on or near empty ontainers. Vapors of this product are heavier than air and will collect in low areas. Do not eat, drink or smoke while handling.
Storage: Store in a dry place. Keep container tightly closed when not in use. Significant vapor pressures (>5psi) can be

SECTION 8-PRECAUTIONS TO CONTROL EXPOSURE / PERSONAL PROTECTION

Component	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL:
Methylene Chloride (dichloromethane)	50 ppm	N/E	25 ppm	125
Trichloroethylene	50 ppm	100 ppm	100 ppm	N/E
Methyl Methacrylate Monomer, Stabilized (MMA)	50 ppm	100 ppm	100 ppm	N/E

FSC Haz Comm & RTK Training

SECTION 7:

Handling and Storage


	HMS	NFPA	
Health	2	2	0-Minimal
Flammability	1	1	1-Slight
Reactivity	0	0	2-Moderate
			3-Serious
			4-Severe

Combustion Products: Hydrogen chloride, trace amounts of chlorine, phosgene.
Protection for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing.

SECTION 6-ACCIDENTAL RELEASE MEASURES

Personal Precautions: Clear all personnel from area. Do not breathe vapors. Ventilate area of leak or spill. Wear protective equipment, positive pressure self contained or air supplied breathing apparatus. Follow confined space entry procedures.
Environmental Precautions: Prevent product or liquids contaminated with product from entering sewers, drains, soil or open water course.
Methods for Cleaning up: Mop or soak up immediately. Place in properly labeled metal containers.
Materials not to be used for clean up: Zinc, Aluminum, or plastic containers.

SECTION 7-HANDLING AND STORAGE

 **Handling:** Avoid breathing of vapor, avoid contact with eyes, skin and clothing Do not swallow. Use with adequate ventilation. Do not cut, drill grind, weld or perform similar operations on or near empty ontainers. Vapors of this product are heavier than air and will collect in low areas.
Storage: Do not eat, drink or smoke while handling. Store in a dry place. Keep container tightly closed when not in use. Significant vapor pressures (>5psi) can be generated above 55°F. Follow all precautionary information on container label, product bulletins and solvent bonding literature.

SECTION 8-PRECAUTIONS TO CONTROL EXPOSURE / PERSONAL PROTECTION

Exposure limits:	Component	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL:
	Methylene chloride (dichloromethane)	50 ppm	N/E	25 ppm	125
	Trichloroethylene	50 ppm	100 ppm	100 ppm	N/E
	Methyl Methacrylate Monomer, Stabilized (MMA)	50 ppm	100 ppm	100 ppm	N/E

Engineering controls: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines. Immediately wash skin area with soap and water and launder clothing before reuse or dispose of properly.
Monitoring: Maintain breathing zone airborne concentrations below exposure limits.

Personal Protective Equipment (PPE)

SECTION 8:

Exposure Controls and PPE

Environmental Precautions: positive pressure self contained or air supplied breathing apparatus. Follow confined space entry procedures.
 Methods for Cleaning up: Prevent contact with skin and clothing. Avoid breathing vapors, mists, fumes, dusts, or aerosols from leaking sewers, drains, soil or open water course.
 Materials not to be used for clean up: Methyl Methacrylate, Acrylonitrile, or other plastic containers.
 Zinc, Aluminum, or plastic containers.

SECTION 7-HANDLING AND STORAGE

Storage: Store in a dry place. Keep container tightly closed when not in use. Significant vapor pressures (>5psi) can be generated above 55°F.
 Do not eat, drink or smoke while handling.
 Follow all precautionary information on container label, product bulletins and solvent bonding literature.

SECTION 8-PRECAUTIONS TO CONTROL EXPOSURE / PERSONAL PROTECTION

Exposure limits:	Component	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL:
	Methylene chloride (dichloromethane)	50 ppm	N/E	25 ppm	125
	Trichloroethylene	50 ppm	100 ppm	100 ppm	N/E
	Methyl Methacrylate Monomer, Stabilized (MMA)	50 ppm	100 ppm	100 ppm	N/E

Engineering controls: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines. Immediately wash skin area with soap and water and launder clothing before reuse or dispose of properly.

Monitoring: Maintain breathing zone airborne concentrations below exposure limits.

Personal Protective Equipment (PPE)

Eye Protection: Use chemical goggles. If exposure causes eye discomfort, use a full-face respirator.

Skin protection: Prevent contact with the skin as much as possible. Use protective clothing chemically resistant to this material. Remove contaminated clothing immediately, wash skin area with soap and water and launder clothing before reuse or dispose of properly.

Respiratory Protection: Prevent inhalation of the solvents. Use in a well-ventilated room. Open doors and/or windows to ensure airflow and air changes. Use local exhaust ventilation to remove airborne contaminants from employee breathing zone and to keep contaminants below levels listed above. With normal use, the Exposure Limit Value will not usually be reached. When limits approached, use respiratory protection equipment.

SECTION 9-PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear thin liquid	Odor Threshold:	250 ppm (Methylene Chloride)
Odor:	Irritating	Evaporation Rate:	>1.0 (BUAC=1)
pH:	Not Applicable	Flammability:	None
Melting/Freezing Point:	-96.7°C (-142.1°F) Methylene Chloride)		
Boiling Point:	39.8°C (104°F) Based on first boiling component: Methylene Chloride		
Flash Point:	None (Methylene Chloride)		

SECTION 9:

Physical and Chemical Properties

SECTION 9-PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear thin liquid	Odor Threshold:	250 ppm (Methylene Chloride)
Odor:	Irritating	Evaporation Rate:	>1.0 (BUAC=1)
pH:	Not Applicable	Flammability:	None
Melting/Freezing Point:	-96.7°C (-142.1°F) Methylene Chloride	Flammability Limits:	LEL: 14% (Methylene Chloride) UEL: 22% (Methylene Chloride)
Boiling Point:	39.8°C (104°F) Based on first boiling component: Methylene Chloride	Vapor Pressure:	355 mmHG @ 20C (Mithylene chloride)
Flash Point:	None (Methylene Chloride)	Vapor Density:	>2.0 (Air = 1)
Specific Gravity:	1.32 @23°C (73.4°F)	Other Data: Viscosity:	Water-thin
Solubility:	1.3 @ 25°C (Methylene Chloride)		
Partition coefficient n-octanol/water:	Not Available		
Auto-ignition Temperature:	556°C (1033°F) (Methylene Chloride)		
Decomposition Temperature:	Not Applicable		
VOC Content:	When applied as directed, per SCAFQMD Rule 1168, Test Method 316A, VOC content is <250 g/l.		

SECTION 10-STABILITY AND REACTIVITY

Stability:	Stable under recommended storage conditions. (See Section 7)
Hazardous decomposition products:	Depending on temperature and air supply, may include hydrogen chloride, trace amounts of chlorine, phosgene.
Conditions to avoid:	Avoid open flames, welding arcs, or other high temperature sources. Avoid direct sunlight.
Incompatible Materials:	Oxidizers strong bases, amines, metals such as zinc powders aluminum or magnesium powders, potassium sodium.

SECTION 11-TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Inhalation, Eye and Skin contact
Acute symptoms and effects: FSC Haz Comm & RTK Training

Inhalation: Excessive overexposure may cause irritation to nose and throat. In confined areas, vapor can accumulate and cause unconsciousness.

SECTION 10: Stability and Reactivity

Melting/Freezing Point: -96.7°C (-142.1°F) (Methylene Chloride)
 Boiling Point: 39.5°C (103.1°F) (Methylene Chloride)
 Flash Point: None (Methylene Chloride)
 Specific Gravity: 1.32 @ 23°C (73.4°F)
 Solubility: 1.3 @ 25°C (Methylene Chloride)
 Partition coefficient n-octanol/water: Not Available
 Vapor Pressure: 355 mmHG @ 20C (Methylene chloride)
 Evaporation Rate: >1.0 (BUAC=1)
 Flammability Limits: LEL: 14% (Methylene Chloride)
 UEL: 22% (Methylene Chloride)
 Vapor Density: >2.0 (Air = 1)
 Other Data: Viscosity: Water-thin
 VOC Content: When applied as directed, per SCAFOQMD Rule 1168, Test Method 316A, VOC content is <250 g/l.

SECTION 10-STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions. (See Section 7)
Hazardous decomposition products: Depending on temperature and air supply, may include hydrogen chloride, trace amounts of chlorine, phosgene.
Conditions to avoid: Avoid open flames, welding arcs, or other high temperature sources. Avoid direct sunlight.
Incompatible Materials: Oxidizers strong bases, amines, metals such as zinc powders aluminum or magnesium powders, potassium sodium.

SECTION 11-TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Inhalation, Eye and Skin contact
Acute symptoms and effects:
Inhalation: Excessive overexposure may cause irritation to nose and throat. In confined areas, vapor can accumulate and can cause unconsciousness.
Eye Contact: May cause moderate eye irritation which may be slow to heal. May cause slight corneal injury. Vapor may cause mild discomfort and redness.
Skin Contact: Prolonged contact may cause skin burns. May cause more severe response on covered skin (under clothing and gloves).
Ingestion: Low toxicity if small amount swallowed, however larger amounts may cause injury. Aspiration into the lungs may occur during ingestion or vomiting.
Chronic (long term) effects: IARC Classification 2B (Methylene Chloride)

Toxicity:	LD 50	LC50
Methylene Chloride (dichloromethane)	Oral: 1500-2500 mg/kg (rat), Dermal: Not Determined	Inhalation 7 hrs. >10000 PPM (rat)
Trichloroethylene	Oral: 5650 mg/kg (rat)	Inhalation 4 hrs. 12000PPM (rat)
Methyl Methacrylate Monomer, Stabilized (MMA)	Oral: 7900 mg/kg (rat), dermal: >35000 mg/kg (rabbit)	Inhalation: 3hrs. 7093 PPM (rat)

Reproductive Effects	Teratogenicity	Mutagenicity	Embryotoxicity	Sensitization to Product	Synergistic Products
Not Established	Not Established	Not Established	Not Established	Not Established	Not Established

SECTION 12-ECOLOGICAL INFORMATION

SECTION 11:

Toxicological Information

SECTION 11-TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Inhalation, Eye and Skin contact

Acute symptoms and effects:

Inhalation: Excessive overexposure may cause irritation to nose and throat. In confined areas, vapor can accumulate and can cause unconsciousness.

Eye Contact: May cause moderate eye irritation which may be slow to heal. May cause slight corneal injury. Vapor may cause mild discomfort and redness.

Skin Contact: Prolonged contact may cause skin burns. May cause more severe response on covered skin (under clothing and gloves).

Ingestion: Low toxicity if small amount swallowed, however larger amounts may cause injury. Aspiration into the lungs may occur during ingestion or vomiting.

Chronic (long term) effects: IARC Classification 2B (Methylene Chloride)

Toxicity:	LD 50	LC50
Methylene Chloride (dichloromethane)	Oral: 1500-2500 mg/kg (rat), Dermal: Not Determined	Inhalation 7 hrs. >10000 PPM (rat)
Trichloroethylene	Oral: 5650 mg/kg (rat)	Inhalation 4 hrs. 12000PPM (rat)
Methyl Methacrylate Monomer, Stabilized (MMA)	Oral: 7900 mg/kg (rat), dermal: >35000 mg/kg (rabbit)	Inhalation: 3hrs. 7093 PPM (rat)

Reproductive Effects	Teratogenicity	Mutagenicity	Embryotoxicity	Sensitization to Product	Synergistic Products
Not Established	Not Established	Not Established	Not Established	Not Established	Not Established

SECTION 12-ECOLOGICAL INFORMATION

Ecotoxicity: None Known

Mobility: In normal use, emission of volatile organic compounds (VOC's) to the air takes place, typically at a rate of <250 g/l. Mobility in soil is high.

Degradability: Not readily biodegradable

Biodegradation: 20%

SECTION 13-WASTE DISPOSAL CONSIDERATIONS

SECTION 12: Ecological Information*

*Note: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15 (29 CFR 1910.1200(g)(2)).

Reproductive Effects	Teratogenicity	Mutagenicity	Embryotoxicity	Sensitization to Product	Synergistic Products
Not Established	Not Established	Not Established	Not Established	Not Established	Not Established

SECTION 12-ECOLOGICAL INFORMATION

Ecotoxicity:	None Known
Mobility:	In normal use, emission of volatile organic compounds (VOC's) to the air takes place, typically at a rate of <250 g/l. Mobility in soil is high.
Degradability:	Not readily biodegradable
Bioaccumulation:	Low

SECTION 13-WASTE DISPOSAL CONSIDERATIONS

Chemical residues are generally classified as hazardous waste, and as such are covered by regulations which vary according to location. Contact your local waste disposal authority for advice, or pass to a licensed chemical disposal company. Rinse out empty containers thoroughly before returning for recycling. Washing liquid should not be allowed to enter drains but be disposed of as hazardous waste.

When recovery and recycling is not possible, incineration in a high-temperature incinerator is the recommended method of disposal.

Do not allow to enter drinking water supplies, waste water, or soil.

SECTION 14-TRANSPORTATION INFORMATION

Proper Shipping Name:	Dichloromethane (Mixture)
Hazard Class:	6.1
Secondary Risk:	None
Identification Number:	UN 1593
Packing Group	PG III
Label Required:	Toxic (Domestic USA and International)
Marine Pollutant:	NO

EXCEPTION for Ground Shipping

DOT Limited Quantity: Up to 4L per inner packaging, 30 kg gross weight per package.
Consumer Commodity: Depending on packaging, these quantities may qualify under DOT as "ORM-D"

TDG INFORMATION

TDG CLASS:	Toxic 6.0
SHIPPING NAME:	Dichloromethane (Mixture)
UN NUMBER/PACKING GROUP	UN 1593 PGIII

SECTION 13: Disposal Considerations

*Note: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15 (29 CFR 1910.1200(g)(2)).

Reproductive Effects	Teratogenicity	Mutagenicity	Embryotoxicity	Sensitization to Product	Synergistic Products
Not Established	Not Established	Not Established	Not Established	Not Established	Not Established

SECTION 12-ECOLOGICAL INFORMATION

Ecotoxicity: None Known
Mobility: In normal use, emission of volatile organic compounds (VOC's) to the air takes place, typically at a rate of <250 g/l. Mobility in soil is high.
Degradability: Not readily biodegradable
Bioaccumulation: Low

SECTION 13-WASTE DISPOSAL CONSIDERATIONS

Chemical residues are generally classified as hazardous waste, and as such are covered by regulations which vary according to location. Contact your local waste disposal authority for advice, or pass to a licensed chemical disposal company. Rinse out empty containers thoroughly before returning for recycling. Washing liquid should not be allowed to enter drains but be disposed of as hazardous waste.

When recovery and recycling is not possible, incineration in a high-temperature incinerator is the recommended method of disposal.

Do not allow to enter drinking water supplies, waste water, or soil.

SECTION 14-TRANSPORTATION INFORMATION

Proper Shipping Name: Dichloromethane (Mixture)
 Hazard Class: 6.1
 Secondary Risk: None
 Identification Number: UN 1593
 Packing Group: PG III
 Label Required: Toxic (Domestic USA and International)
 Marine Pollutant: NO

EXCEPTION for Ground Shipping

DOT Limited Quantity: Up to 4L per inner packaging, 30 kg gross weight per package.
Consumer Commodity: Depending on packaging, these quantities may qualify under DOT as "ORM-D"

TDG INFORMATION

TDG CLASS: Toxic 6.0
SHIPPING NAME: Dichloromethane (Mixture)
UN NUMBER/PACKING GROUP: UN 1593 PGIII

SECTION 15-REGULATORY INFORMATION

SECTION 14: Transportation Information

*Note: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15 (29 CFR 1910.1200(g)(2)).

SECTION 13-WASTE DISPOSAL CONSIDERATIONS

Follow local and national regulations. Consult disposal expert.

SECTION 14-TRANSPORTATION INFORMATION

Proper Shipping Name: Dichloromethane (Mixture)
 Hazard Class: 6.1
 Secondary Risk: None
 Identification Number: UN 1593
 Packing Group: PG III
 Label Required: Toxic (Domestic USA and International)
 Marine Pollutant: NO

EXCEPTION for Ground Shipping

DOT Limited Quantity: Up to 4L per inner packaging, 30 kg gross weight per package.
Consumer Commodity: Depending on packaging, these quantities may qualify under DOT as "ORM-D"

TDG INFORMATION

TDG CLASS: Toxic 6.0
SHIPPING NAME: Dichloromethane (Mixture)
UN NUMBER/PACKING GROUP: UN 1593 PGIII

SECTION 15-REGULATORY INFORMATION

Precautionary Label Information: Harmful, Suspected Carcinogen

Ingredient Listings: USA TSCA Europe EINECS, Canada DSL, Australia AICS, Korea, ECL/TCCL, Japan MITI (ENS), CA Prop 65

Symbols: Xn
Risk Phrases: R23/34/35: Toxic by inhalation, in contact with skin and if swallowed
 R36/37: Irritating to eyes and respiratory system.
 R40: Possible risks of irreversible effects.
 R66: Repeated exposure may cause skin dryness or cracking
 R67: Vapors may cause drowsiness and dizziness
Safety Phrases: S2: Keep out of the reach of children.
 S7: Keep container tightly closed when not in use
 S9: Keep container in a well-ventilated place.
 S16: Keep away from sources of ignition No smoking.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S29: Do not empty into drains.
 S33: Take precautionary measures against static discharges

SECTION 15 & 16: Regulatory* and Other

*Note: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15 (29 CFR 1910.1200(g)(2)).

SECTION 15-REGULATORY INFORMATION

Precautionary Label Information:	Harmful, Suspected Carcinogen	Ingredient Listings: USA TSCA Europe EINECS, Canada DSL, Australia AICS, Korea, ECL/TCCL, Japan MITI (ENS), CA Prop 65
Symbols:	Xn	
Risk Phrases:	R23/34/35: Toxic by inhalation, in contact with skin and if swallowed R36/37: Irritating to eyes and respiratory system. R40: Possible risks of irreversible effects. R66: Repeated exposure may cause skin dryness or cracking R67: Vapors may cause drowsiness and dizziness	
Safety Phrases:	S2: Keep out of the reach of children. S7: Keep container tightly closed when not in use S9: Keep container in a well-ventilated place. S16: Keep away from sources of ignition No smoking. S23/24/25: Avoid breathing vapors, contact with skin and eyes. S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S29: Do not empty into drains. S33: Take precautionary measures against static discharges. S51: Use only in well ventilated areas.	

SECTION 16-OTHER INFORMATION

Specification Information:	
Department issuing data sheet:	IPS,Safety Health & Environmental Affairs All ingredients are compliant with the requirements of the European Directive on ROHS (Restriction of Hazardous Substances).
Email address:	EHSinfo@ipscorp.com
Training necessary:	Yes training in practices and procedures contained in product literature.
Reissue date / reason for reissue:	2/19/2010 / Modified GHS Standard Format
Intended Use of Product:	Solvent Cement for Bonding Acrylics

This product is intended for use by skilled individuals at their own risk. The information contained herein is based on data considered accurate based on current state of knowledge and experience. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof.

KEY POINTS To Remember!

- It is essential to have complete and accurate information about the substances you use
- The SDS helps prevent accidents and exposures
- Always consult the SDS for the substances you use on the job.

Questions?

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