

Safety Orientation

Facility Safety Rules
Hazard Communication
Emergency Procedures
Fire Safety

Facility Safety Rules

Report all hazards, unsafe acts, unsafe conditions and unsafe equipment to your Supervisor or Safety Department.

Immediately report all accidents, injuries and illnesses to your Supervisor; no matter how small or slight the injury may appear.

Facility Safety Rules

NO REST OR LUNCH BREAKS ARE TO BE TAKEN IN
THE PARKING LOT

No loitering in the parking lot

Facility Safety Rules

Horseplay, fighting, scuffling or other acts that tend to adversely influence the safety or well being of others are prohibited.

Any type of unsafe act on company property will not be tolerated.

Facility Safety Rules

Upon hearing a fire alarm, and if you are directed to evacuate, stop work and proceed to the nearest clear exit, assemble at the designated emergency evacuation staging area.

Evacuation routes and staging areas are posted in each work area.

Facility Safety Rules

Do not operate any company equipment unless you are properly authorized and trained to do so; you must be trained on the specific piece of equipment you are operating.

Facility Safety Rules

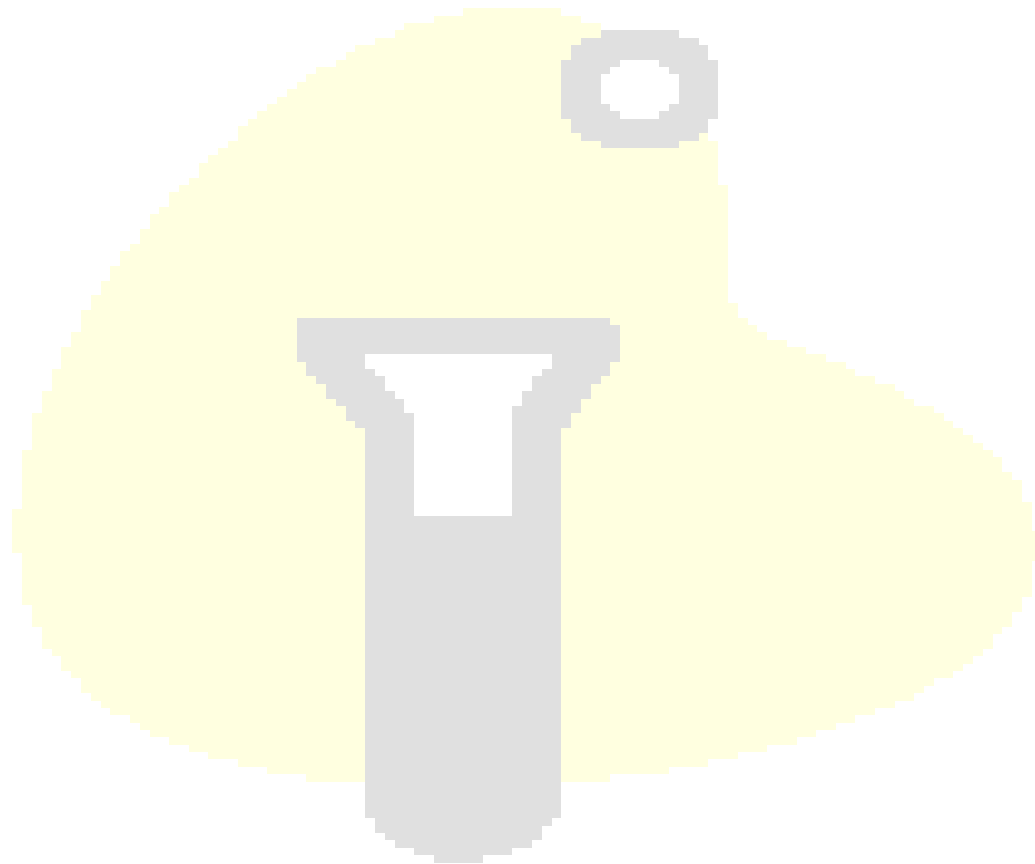
Be aware of potential hazards involving various chemicals stored or used our workplace.

- Sulfuric acid/Lead type batteries.
- Propane Gas.
- Ammonia in our refrigeration system.
- Various cleaning chemicals

Facility Safety Rules

You are required to follow the Facility Safety Rules. Failure to do so will result in termination of your employment at LLC.

Hazard Communication



Hazard Communication

This information will cover the following:

- Hazard Communication Standard
- Where specific hazards exist, safe work practices, precautions
- How hazardous chemicals affect the body
- Procedures for emergencies
- Methods to detect the presence or release of a hazardous chemical
- Labeling system
- Location of MSDSs
- How to obtain written information

Hazard Communication Standard

You have a “Right To Know” what chemicals you are working with or around.

- Must be trained at time of initial employment**
- When a new chemical substance is introduced**

**Our written program is located in the
Safety Department’s office**

hazardous chemicals affect the body

A hazardous chemical is any chemical that can do harm to your body.

It depends on several factors:

- How the chemical enters the body
- The physical form of the chemical
- The amount of chemical that actually enters the body - the dose-
- How toxic (poisonous) the chemical is



Routes of Entry

- **Inhalation (breathing)**

- ✓ Gases & vapors are absorbed through the lungs directly into the bloodstream.

- **Ingestion (swallowing)**

- ✓ Chemicals can rub off dirty hands and contaminate food, drinks or tobacco products.
- ✓ Chemicals in the air can settle on food or drink and be swallowed.

- **Absorption (through the skin, eyes)**

- ✓ Some chemicals can pass through the skin, eyes into the body.

- **Injection (punctures to skin)**

- ✓ Another way chemicals can pass through the skin into the body

Hazardous Chemicals

All chemicals exists in one of three states

Solids

Definite shape



Liquids

Takes the shape
of the container



Gases

No definite shape



Hazard Communication

Chemicals can pose **physical** and **health** risks to humans, animals and the environment



Hazard Communication

PHYSICAL HAZARDS:

Caused by:

Explosions, fires, violent chemical reactions, or other hazardous conditions.

Hazard Communication

HEALTH HAZARDS: Can cause injury or illness through:

- Breathing
 - Swallowing
 - Skin Contact
 - Eye Contact
-
- **Acute** – Effects are immediate and follow short-term exposure
 - **Chronic** – Effects take a long time to occur and usually require long-term repeated exposure

Chemicals used at our **Cold Storage** Warehouse Facilities

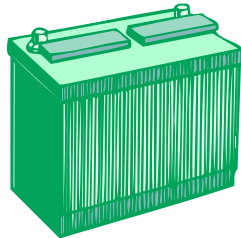
Cold Storage Warehouse facilities

- Anhydrous Ammonia in our refrigeration plants.
- Sulfuric Acid in our forklift batteries.
- Propane for our scrubber machines.
- Water treatment chemicals for our cooling towers.
- Small quantities of oils, diesel fuel and miscellaneous cleaning compounds.

Sulfuric Acid

Main Hazard

- Corrosive material



PPE requirements

- Safety glasses/Face shield
- Rubber gloves

- Burns to skin

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

- Burns to eyes

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used.



Eyewashes are located within 10 seconds of battery Charging areas

Propane Gas

Main Hazards

- Fire & explosion
- Inhalation
 - Low concentration: dizziness, headache, nausea, lack of coordination
 - High concentration : asphyxiation

PPE

- Gloves
- Face shield
- Long sleeve shirt

Anhydrous Ammonia

Anhydrous Ammonia is a colorless and strong smelling gas

Basic Health Hazards

- Irritant and corrosive to skin, eye, respiratory tract and mucous membranes.
- May cause severe burns, eye and lung injuries. Skin and respiratory related diseases aggravated by exposure.
- Do not enter a visible cloud of ammonia. It will damage your lungs

Ammonia Release **Outside** the Facility

Shelter in Place.

- If there is an ammonia release **outside** the facility (i.e.) receiver tank, piping etc, it is advisable to **NOT** evacuate the building
- It will be safer to stay inside the building to avoid contact with the released ammonia. This procedure offers the best protection when an Ammonia release happens outside the facility

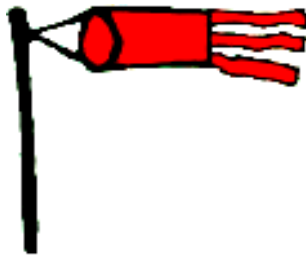
Shelter-in-Place

The Shelter-in-Place steps are:

- Go inside the warehouse or office closest to you.
- Begin Shelter-in-Place procedures by closing all windows, doors and vents.
- Turn off all heating and cooling ventilation systems.
- **Shelter-in-Place has been proven effective when there is no need to or insufficient time to evacuate.**

Ammonia Release **Inside** the Facility

- In the event of an ammonia leak **inside** the building you will be asked to evacuate as directed.
- The wind direction will be communicated to everyone in order to direct the evacuation to the upwind location.
- The outside wind direction is critical in an evacuation due to an ammonia release. All employees will need to evacuate upwind



Information about hazardous chemicals

You can get information two ways:

from the product label,



from the product material safety data sheet.

MSDS

Product Label

The manufacturer,

sunnyside

The name of the product,

odorless
paint thinner

Hazard warning,

For use with odorless
paints & enamels.



List of hazardous ingredients

DANGER!
HARMFUL OR FATAL IF SWALLOWED.
COMBUSTIBLE LIQUID & VAPOR.

Carefully read all cautions elsewhere on this container.

Hazardous Materials Identification System

FRONT

BACK

FIELD SOLVENT

1	HEALTH
2	FLAMMABILITY
0	REACTIVITY
X	PROTECTIVE EQUIPMENT

RUBBER GLOVES **SPLASH GOGGLES** **FACE SHIELD**





SEE OTHER SIDE

ID97217301 PANDUIT CTT5647836

CHEMICAL NAME
MINERAL SPIRITS #2
 (CHECK OFF APPROPRIATE BOXES)

ROUTE OF ENTRY

INHALATION INGESTION
 SKIN ABSORPTION SKIN OR EYE CONTACT

HEALTH HAZARDS

NO HEALTH HAZARDS
 TOXIC
 HIGHLY TOXIC
 REPRODUCTIVE TOXIN
 IRRITANT
 CORROSIVE
 SENSITIZER
 CARCINOGEN

PHYSICAL HAZARDS

NO PHYSICAL HAZARDS
 COMBUSTIBLE LIQUID
 COMPRESSED GAS
 OXIDIZER
 FLAMMABLE GAS
 EXPLOSIVE
 FLAMMABLE LIQUID / SOLID
 PYROPHORIC
 ORGANIC PEROXIDE
 WATER REACTIVE
 UNSTABLE (REACTIVE)

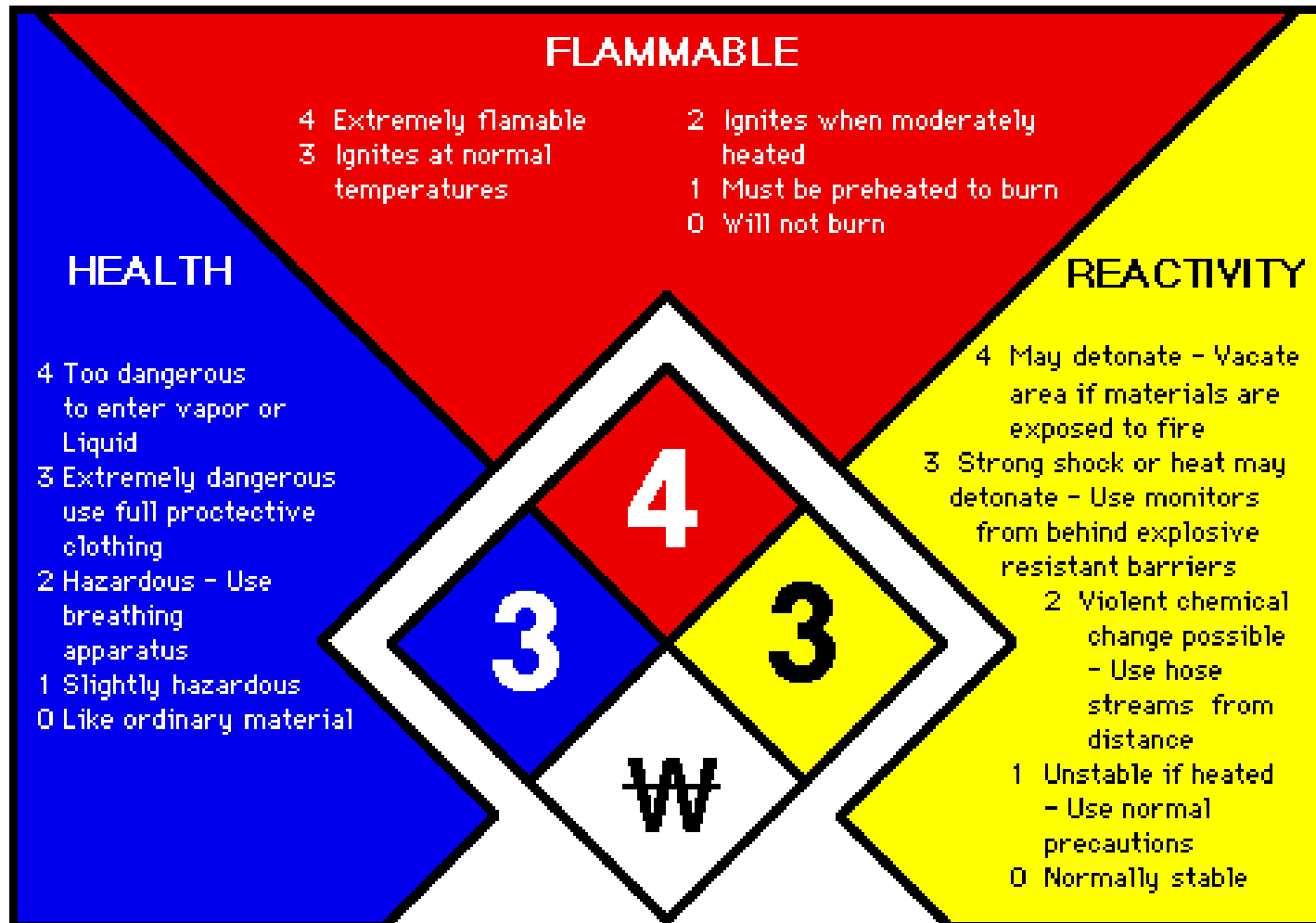
TARGET ORGANS & EFFECTS

<input checked="" type="checkbox"/> LUNGS	<input checked="" type="checkbox"/> CENTRAL NERVOUS SYSTEM
<input checked="" type="checkbox"/> HEART	<input type="checkbox"/> CARDIOVASCULAR SYSTEM
<input checked="" type="checkbox"/> KIDNEY	<input type="checkbox"/> MUCOUS MEMBRANES
<input type="checkbox"/> EYES	<input type="checkbox"/> AUTONOMIC NERVOUS SYSTEM
<input type="checkbox"/> SKIN	<input type="checkbox"/> RESPIRATORY SYSTEM
<input type="checkbox"/> PROSTATE	<input type="checkbox"/> MUTAGEN
<input type="checkbox"/> BLOOD	<input type="checkbox"/> TERATOGEN
<input checked="" type="checkbox"/> LIVER	

SEE OTHER SIDE

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NFPA DIAMOND



Material Safety Data Sheet

Material safety data sheets or “MSDSs” are information sheets on products that:

- tells what chemicals are in the product,
- what the hazards of the chemicals are,
- how to protect yourself from the hazards.

The text 'MSDS' is rendered in a 3D, blocky font. The letters are primarily blue with a white-to-blue gradient, and they have a thick orange shadow or outline that gives them a three-dimensional appearance. The text is slanted slightly to the right.

Material safety data sheets (MSDS) are located in each break room area.

Material Safety Data Sheet

MATERIAL SAFETY DATA SHEET

Trade Name: **ACETONE**

Chemical Family: Acetone

Formula: C₃H₆O

Manufacturer:

Supplier:

Emergency Phone #s

Transportation EMG. Phone #s CANUTEC

HAZARDOUS INGREDIENTS

ACETONE: 99% CAS # 67-64-1

Exposure limits, PPM : OSHA-PEL 750 , ACGIH - TLV 750

LD50 Oral rat 9750 MG/KG , Skin rabbit 20 G/KG, LC50 rat 16000 PPM

PHYSICAL DATA

Appearance & Odor: Clear colorless liquid, sweet odor

Vapor pressure: MM HG/20 DEG. c :184

Vapor density: (AIR 1) 2.0

Solubility in water: 100%

Specific gravity: (Water = 1) 0.79

FIRE AND EXPLOSION DATA

Flashpoint & Method: 0% F (TCC)

Flammable Limits: LFL 2.0 , UFL 13.0

Extinguishing Media: water spray, dry chemical, CO₂, alcohol foam

Special equip. & procedures: Self contained breathing apparatus & complete protective clothing. Acetone is extremely flammable, any source of ignition will ignite it. Vapor is extremely explosive.

REACTIVITY DATA

Conditions Contributing to Instability: Heat, Sparks & Open Flame

Incompatible Substances: Acids, Oxidizing materials, Alkalis, Amines, Potassium T-Butoxide, Alkanolamines, Ammonia, Aldehydes, Chlorinated compounds.

Hazardous Decomposition Products: Carbon Monoxide, Carbon Dioxide

Hazardous Polymerization: will not occur.

MATERIAL SAFETY DATA SHEET

HEALTH HAZARDS DATA

NOTE: Health studies have shown that exposure to chemicals pose potential risks which may vary from person to person. Exposure to liquids, vapors, mists or fumes should be minimized.

PRINCIPAL HEALTH HAZARDS

Skin contact: contact will dry skin, irritate skin , dermatitis

Eye contact: irritation and may burn eye

Ingestion: large quantities causes headaches, nausea, vomiting. Can also cause liver and kidney damage.

Inhalation: may cause headaches, nausea, vomiting, dizziness, other central nervous system effects, (i.e. convulsions)

FIRST AID PROCEDURES

Skin: Avoid direct contact with this chemical, wash with soap and water, seek medical attention if a rash persists.

Eyes: Flush with warm water for 20 minutes, obtain medical attention immediately.

Ingestion: If conscious, **immediately induce vomiting** by giving 2 glasses of water and sticking a finger down the throat. Get medical attention immediately.

Inhalation: Remove to fresh air. Give A/R if not breathing, get immediate medical attention.

PREVENTATIVE MEASURES

Skin: Wear impervious gloves (butyl rubber), coveralls and safety footwear.

Eyes: Chemical proof goggles or full face respirator if vapors cause eye discomfort.

Ingestion: Wash thoroughly before consuming food stuffs.

Inhalation: Use only in well ventilated areas or use NIOSH approved respiratory protection with organic vapor cartridges.

CONTROL MEASURES AND PRECAUTIONS

Keep container tightly closed. **DO NOT** consume food, drink or tobacco in work or material storage areas. **Flame or any source of ignition is to be kept away from this product.** Use caution and personal cleanliness to avoid skin and eye contact. Avoid breathing vapors.

SPILL, LEAK AND DISPOSAL METHODS

**** Review Fire and Explosion Hazards and Safety Precautions before proceeding with cleanup.** Restrict access to area. Remove all sources of ignition and ventilate area. Absorb spill with an absorbent material such as vermiculite or

Protect yourself from hazardous chemicals

Know what is in the product your are working with,



Use the smallest amount of a chemical to do the job,



Maintain machinery and equipment to prevent leaks or releases,



Protect yourself from hazardous chemicals

Use available ventilation to reduce amounts of chemicals in the air,



Keep lids, doors or covers closed on chemical containers,



Wear necessary personal protective equipment.



In case of a leak or spill

Inform your supervisor of unusual odors, spills, or releases,



Leave an area of a large spill or chemical release and inform your supervisor and coworkers.



In case of exposure

Let your supervisor know,

Find out what the chemical was,

Follow the first aid directions in the
MSDS,

Get medical attention as needed,



Our Worksite Information



Methods, equipment and work practices we have to protect you from chemical exposure:

Only authorized personnel can perform work with or around Anhydrous Ammonia system

Only authorized personnel can perform work using chemical products at our facilities

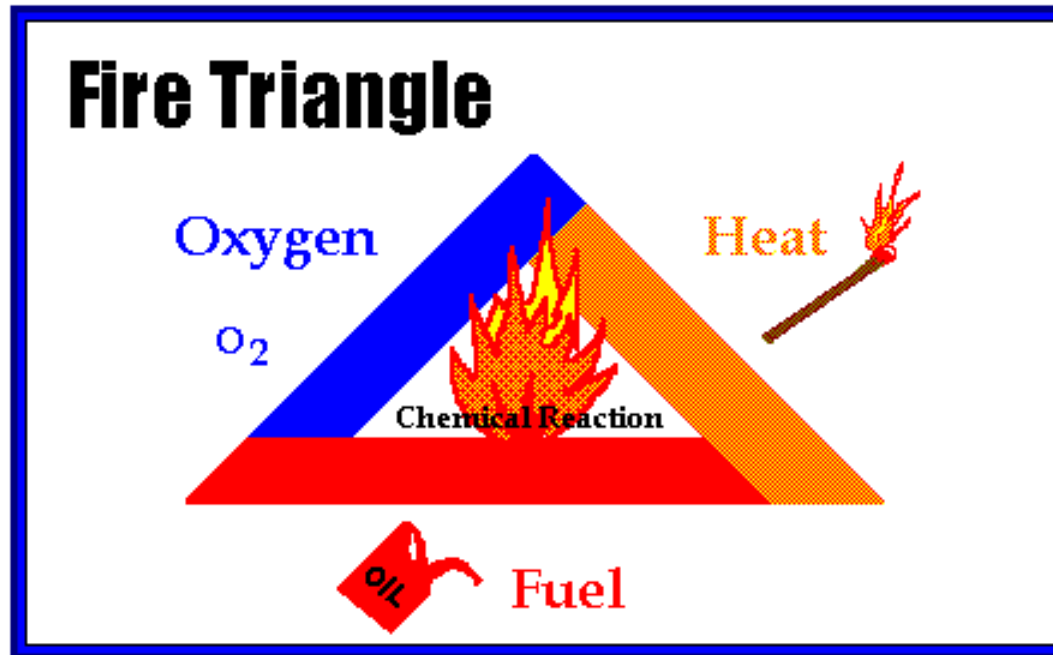
Always refer to the MSDS for the proper handling and use of a chemical product

Emergency Evacuation Staging Area

- The emergency evacuation staging areas are specifically designated depending on the facility, you will be informed of this location at initial employment
- You will be directed as to which area to evacuate and assemble where you will report to your Supervisor.
- The emergency evacuation staging areas or shelter in place at facilities that use Anhydrous Ammonia are dependent of the point of release and the direction of prevailing winds.

Fire Safety/Extinguisher Use

The Fire Triangle



Fire Safety, at its most basic, is based upon the principle of keeping fuel sources and ignition sources separate.

The Fire Triangle

Three things must be present at the same time to produce fire:

1. Enough OXYGEN to sustain combustion
2. Enough HEAT to reach ignition temperature
3. Some FUEL or combustible material

Together, they produce the CHEMICAL REACTION that we call **FIRE**

Take away any of these things and the fire will be extinguished

Fuel Classifications

- Fires are classified according to the type of fuel that is burning.
- If you use the wrong type of fire extinguisher on the wrong class of fire, you might make matters worse.
- Its very important to understand the four different fire (fuel) classifications...

Fuel Classifications



Class A: Wood, paper, cloth, trash, plastics—solids that are not metals.



Class B: Flammable liquids—gasoline, oil, grease, acetone. Includes flammable gases.



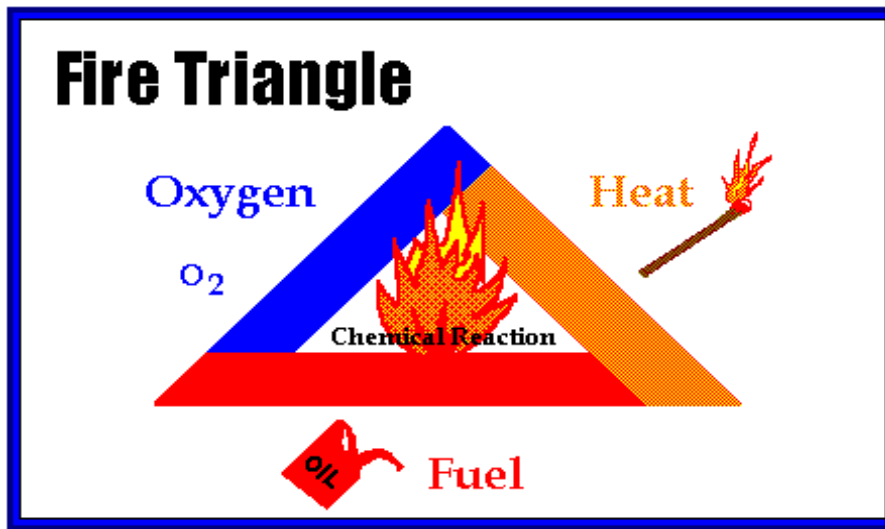
Class C: Electrical—energized electrical equipment. As long as it's “plugged in.”



Class D: Metals—potassium, sodium, aluminum, magnesium. Requires Metal-X, foam, and other special extinguishing agents.

Types of Fire Extinguishers

Dry Chemical (ABC) Fire Extinguishers

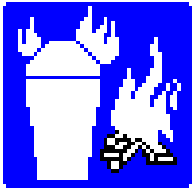


Dry chemical extinguishers put out fire by coating the fuel with a thin layer of dust. This separates the fuel from the oxygen in the air.

The powder also works to interrupt the chemical reaction of fire. These extinguishers are very effective at putting out fire.

Types of Fire Extinguishers

Dry Chemical (ABC) Fire Extinguishers

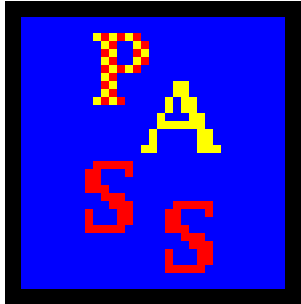


An “ABC” extinguisher will have a label like this, indicating it may be used on Class A, B and C fires.



On this facility you will find fire extinguishers rated for ABC fire class in many places in the warehouse, break rooms, offices, chemical storage areas, engine rooms

How to Use a Fire Extinguisher



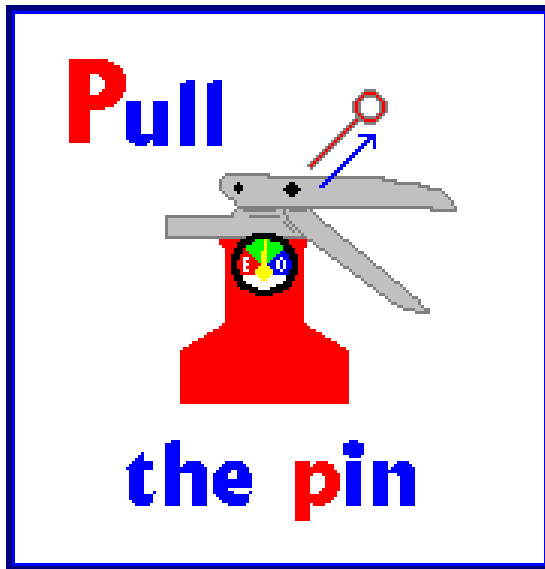
It's easy to remember how to use a fire extinguisher if you remember the acronym PASS:

- **P**ull
- **A**im
- **S**queeze
- **S**weep



How to Use a Fire Extinguisher

Pull the pin...



**This will allow
you to discharge
the extinguisher**

How to Use a Fire Extinguisher

Aim at the base of the fire...



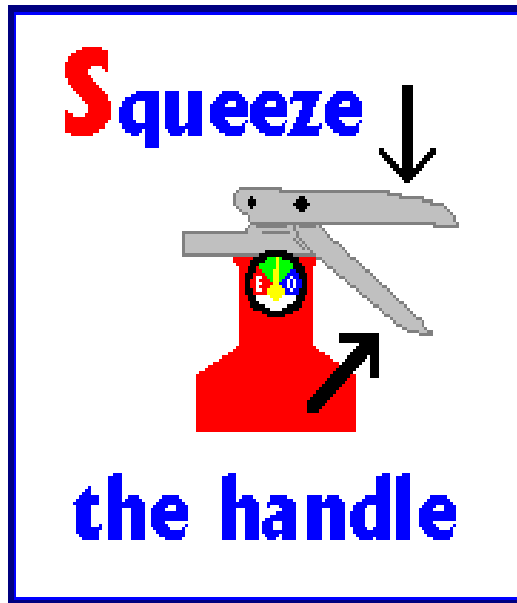
Hit the fuel.

If you aim at the flames...

... the extinguishing agent will fly right through and do no good.

How to Use a Fire Extinguisher

Squeeze the top handle...



This depresses a button that releases the pressurized extinguishing agent.

How to Use a Fire Extinguisher

Sweep from side to side...



.. until the fire is completely out.

Start using the extinguisher from a safe distance away, then slowly move forward.

Once the fire is out, keep an eye on the area in case it re-ignites.

Fire Safety

Fires can be very dangerous and you should always be certain that you will not endanger yourself or others when attempting to put out a fire.

For this reason, when a fire is discovered...

Assist any person in immediate danger to safety, if it can be accomplished without risk to yourself.

Activate the building fire alarm. The fire alarm will notify the fire department and other building occupants

keep these things in mind:

Is the fire spreading rapidly beyond the point where it started? The time to use an extinguisher is at the beginning stages of the fire.

If the fire is already spreading quickly, it is best to simply evacuate the building.

As you evacuate a building, close doors and windows behind you as you leave. This will help to slow the spread of smoke and fire.

Rules for Fighting Fires

The final rule is to always position yourself with an exit or means of escape at your back before you attempt to use an extinguisher to put out a fire.



In case the extinguisher malfunctions, or something unexpected happens, you need to be able to get out quickly. You don't want to become trapped.

This concludes your “Right To Know” orientation.
We ask you to follow and apply all the information
provided to you when working.

Safety benefits everyone, but most
importantly.....YOU!

Questions?

