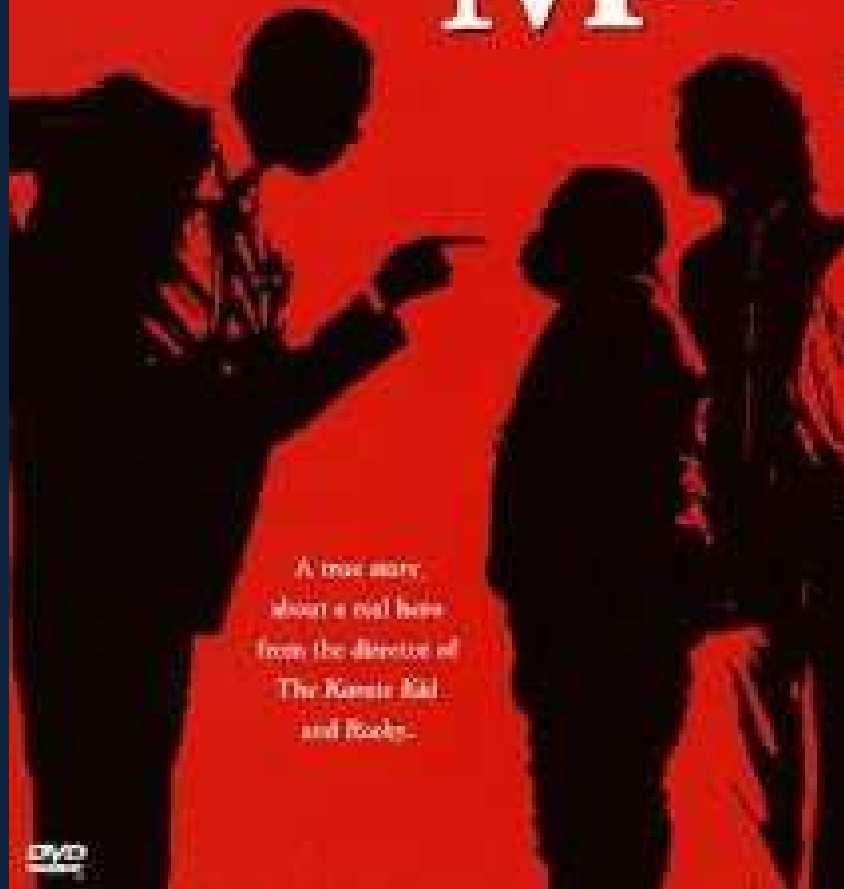


Lab Safety

LEAN ON ME



A true story
about a real hero
from the director of
The Karate Kid
and *Boyz n the City*.

DVD
Video

The Bottom Line

FACE IT, Nobody owes you a living,
What you achieve or fail to achieve in your
lifetime,
is directly related to what you do or fail to do.
No one chooses his parents or childhood,
but you can choose your own direction.
Everyone has problems and obstacles to
overcome,
but that, too, is relative to each individual.

NOTHING IS CARVED IN STONE,

you can change anything in your life,

if you want to badly enough,

Excuses are for losers;

Those who take responsibility for their actions

are the real winners in life.

Winners meet life's challenges head on,

knowing there are no guarantees,

and give it all they've got.

And never think it's too late or too early to begin.

Time plays no favorites

and will pass whether you act or not.

TAKE CONTROL OF YOUR LIFE.

Dare to dream and take risks...

Compete.

If you aren't willing to work for your
goals,

don't expect others to.

---Believe in Yourself---

X-Men Safety

- In your groups, read the X-Men Safety paper and identify the broken safety rules.

Kitty Pride, Cyclops, and Iceman were thrilled when Professor X gave their teacher a chemistry set! Professor X warned them to be careful and reminded them to follow the safety rules they had learned in science class. The teacher passed out the materials and provided each person with an experiment book.

Kitty Pride and Cyclops flipped through the book and decided to test the properties of a mystery substance. Since the teacher did not tell them to wear the safety goggles, they left them on the table. Kitty Pride lit the Bunsen burner and then reached across the flame to get a test tube from Cyclops. In the process, she knocked over a bottle of the mystery substance and a little bit splashed on Cyclops. Kitty Pride poured some of the substance into a test tube and began to heat it. When it started to bubble she looked into the test tube to see what was happening and pointed it towards Cyclops so he could see. Cyclops thought it smelled weird so he took a deep whiff of it. He didn't think it smelled poisonous and tasted a little bit of the substance. They were worried about running out of time, so they left the test tube and materials on the table and moved to a different station to try another experiment.

Iceman didn't want to waste any time reading the directions, so he put on some safety goggles and picked a couple different substances. He tested them with vinegar (a weak acid) to see what would happen even though he didn't have permission to experiment on his own. He noticed that one of the substances did not do anything, but the other one fizzed. He also mixed two substances together to see what would happen, but didn't notice anything. He saw Kitty Pride and Cyclops heating something in a test tube and decided to do that test. He ran over to that station and knocked over a couple bottles that Kitty Pride had left open. After cleaning up the spills, he read the directions and found the materials he needed. The only test tube he could find had a small crack in it, but he decided to use it anyway. He lit the Bunsen burner and used tongs to hold the test tube over the flame. He forgot to move his notebook away from the flame and almost caught it on fire.

Before they could do another experiment, the bell rang and they rushed to put everything away. Since they didn't have much time, Iceman didn't clean out his test tube before putting it in the cabinet. Kitty Pride noticed that he had a small cut on his finger, but decided he didn't have time to tell the teacher about it. Since they were late, they skipped washing their hands and hurried to the next class.

Lab Safety

Why lab safety?

In order to truly understand science we must perform experiments in class. Though most labs have no safety issues, some require the use of chemicals and/or materials that could be dangerous.



Lab Safety Agreement

- Take your agreement home and bring it back signed

Safety Agreement

Know how to use all safety equipment in the lab. Not all equipment will be necessary for all labs.

- Personal safety equipment
 - goggles, gloves, apron, closed-toe shoes, brain
- Group safety equipment
 - Fire equipment, eyewash/shower, Teacher (the most important safety feature of any classroom)

Know Your Class's Lab Safety Procedures

- Accident Procedure

1. Inform teacher
2. Follow teacher instructions immediately

- Glass Breakage Procedure

1. Inform teacher
2. Use dustpan and brush to put broken glass into glass breakage box

Chemical Labels



MSDS Sheets

MATERIAL SAFETY DATA SHEET

SECTION I – PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Benefec[®] Multi-Purpose Cleaner
Chemical Class: Cleaner
Supplier: Sensible Life Products
Address: 7 Innovation Drive, Ontario, CA L9H 7H9
Emergency Phone: (905) 690-7474
Manufacturer: Same as Above
Product Use: General Purpose Cleaning
Updated as of: 05 July 2010

HEALTH	1
FLAMMABILITY	0
REACTIVITY	0

SECTION II – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS#	Wt%	OSHA-PEL	ACGIH-TLV	LD ₅₀	LC ₅₀
2-Hydroxypropanoic acid	50-21-5	3-7	N/A	N/A	3730 mg/kg oral, rat	N/A
Alkyl polyglycoside	110615-47-9	1-5	N/A	N/A	>5000 mg/kg oral, rat	N/A
Glucopyranose, oligomeric, decyl octyl glycosides	68515-73-1	1-5	N/A	N/A	>5000 mg/kg oral, rat	N/A

*No pesticides or preservatives.

*All ingredients are derived from renewable or re-growable sources.

SECTION III – HAZARDS IDENTIFICATION

Calculated Oral LD₅₀: 12526 mg/kg
Calculated Dermal LD₅₀: >2000 mg/kg

Route of Entry: Eye, skin contact, ingestion.

Effects of Acute Exposure:

Eye: Direct contact may cause mild irritation.

Ingestion: Ingestion of large amounts may cause stomach distress, nausea or vomiting.

Effects of Chronic Exposure:

Skin: None known to us at this time.

Respiratory Tract Sensitization: No data available.

Carcinogenicity: Non-hazardous by WHMIS/OSHA criteria.

Teratogenicity, Mutagenicity, Reproductive Effects: No data available.

Synergistic Materials: Not available.

SECTION IV – FIRST AID MEASURES

Eye: Flush with water. Remove contact lenses if applicable, and continue flushing for 15 minutes. Obtain medical attention if irritation persists.

Skin: Not a normal route of harmful exposure. Flush with water. Wash with soap and water. Obtain medical attention if irritation persists.

Inhalation: Not a normal route of exposure. If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention.

Ingestion: Do not induce vomiting. Rinse mouth with water, then drink one glass of water. Obtain medical attention or call a poison-control center immediately. Never give anything by mouth if victim is unconscious, is rapidly losing consciousness or is convulsing.

SECTION V – FIREFIGHTING MEASURES

Flammability: Not flammable.

Flash Point (deg F/C, TCC): None to boil.

LEL: Not applicable.

UEL: Not applicable.

Hazardous Combustion Products: May include and are not limited to oxides of carbon.

Extinguishing Media: Treat for surrounding material.

Special Fire Hazards: Firefighters should wear self-contained breathing apparatus.

Homework

- Read through your notes and answer all of the questions on the back
- Use the MSDS sheets to answer to bottom of the worksheet
- Due Next Class