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Basic Guide to Reading an MSDS Sheet

http://ccinfoweb.ccohs.ca/help/msds/msdstermse.html

http://ccinfoweb.ccohs.ca/help/msds/msdsINTGUIDE.html

An MSDS (Material Safety Data Sheet) or also known as SDS (Safety Data Sheet) is a resource to inform you of the potential Health, Fire, Chemical Reactivity and Environmental Hazards of whatever chemical or product that you use.

Any chemical or material that you use should have an MSDS available. It is a legal requirement for any company to make that information available.

There are different types of MSDS sheets from country to country based on the laws and requirements of that specific government. Most of the sheets are pretty comparable with the basic Health, Fire and Chemical information clearly given. Most of the difference in international MSDS sheets are in regards to environmental hazards and warnings.

HEALTH:
The MSDS sheet will tell you of potential health risks, symptoms to be aware of in case of exposure, how exposure happens, and what first aid measures are to be taken. It is recommended in case of emergency to bring the MSDS sheet with you to the Hospital/Doctor/ER so that the physician has full knowledge of how to treat the exposure and what symptoms to look for.

FIRE:
The MSDS sheet will tell you of potential fire or combustion risks, how to properly store the chemical to reduce risk, and how to treat a fire (chemical, water treatment, smother etc.) It will also tell you if there is any health concern with burning the chemical and how to treat that type of exposure.

CHEMICAL REACTIVITY:
The MSDS sheet will tell you of potential chemical reactions, how to properly store chemicals and what chemicals are not compatible to be stored together.

ENVIRONMENTAL:
The MSDS sheet will tell you of potential environmental risks, what to do in case of accidental spills and/or contamination.

Every MSDS Sheet, in accordance to US and Canadian (NIOSH - the U.S. National Institute for Occupational Safety and Health and CCOHS - the Canadian Centre for Occupational Health and Safety) standards should have these 16 sections/headings:

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION
SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS
SECTION 3 HAZARDS IDENTIFICATION
SECTION 4 FIRST AID MEASURES
SECTION 5 FIRE FIGHTING MEASURES
SECTION 6 ACCIDENTAL RELEASE MEASURES
SECTION 7 HANDLING AND STORAGE
SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION
SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES
SECTION 10 STABILITY AND REACTIVITY
SECTION 11 TOXICOLOGICAL INFORMATION
SECTION 12 ECOLOGICAL INFORMATION
SECTION 13 DISPOSAL CONSIDERATIONS
SECTION 14 TRANSPORT INFORMATION
SECTION 15 REGULATORY INFORMATION
SECTION 16 OTHER INFORMATION

These sections are meant to be a clear breakdown of the necessary information on how to use the chemical/material in a safe and responsible manner.

One thing to remember however, is that artists often times do not use certain chemicals in the manner in which they were meant to be used. An MSDS sheet will only give you the information on Basic Use and Procedures. If you are using a chemical in unorthodox ways, be mindful of that fact and use extra protection/precautions.

Ways in which toxins can enter your system:

1. Inhalation
2. Absorption
3. Ingestion

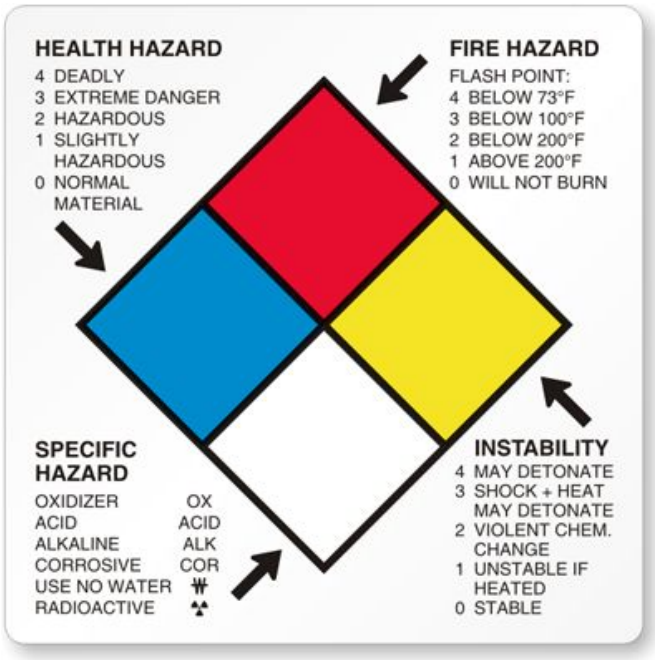
Inhalation:
Contamination and poisoning potential through the respiratory tract. This includes inhalation of toxic fumes and particles/dust.

Absorption:
Contamination and poisoning potential through skin and eye contact. It is important to remember that your skin is the largest organ in your body, absorption through this organ is an important factor to your health and safety.

Ingestion:
Contamination and poisoning potential through the digestive tract.

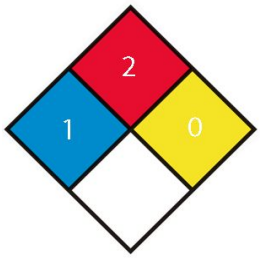
There are a few basic diagrams that you should know how to read:

First is the **NFPA Diamond** diagram:
(NFPA stands for National Fire Protection Association)



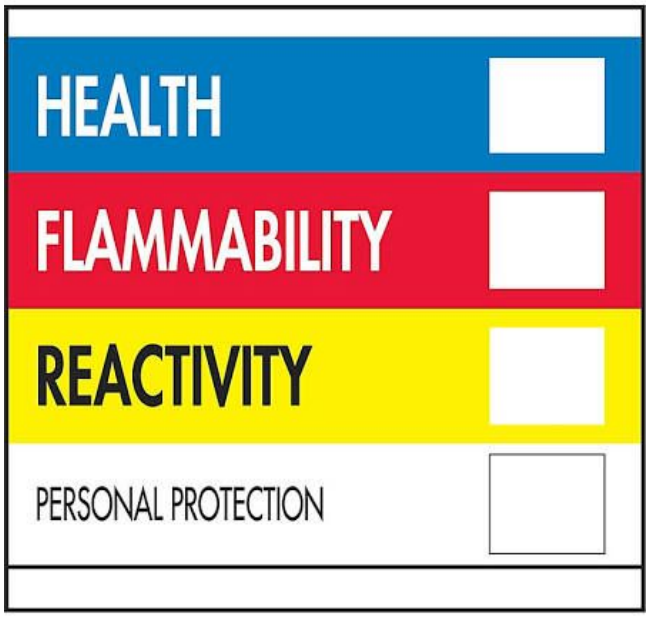
The four colors in the diamond each stand for these concerns:
RED [top diamond]: **Flammability**
YELLOW [right diamond]: **Reactivity**
BLUE [left diamond]: **Health**
WHITE [bottom diamond]: **Special**

Each color will have a number to coincide what the risks are for each potential risk.
For example, the NFPA Diamond diagram for Klean Strip Odorless Mineral Spirits looks like this:



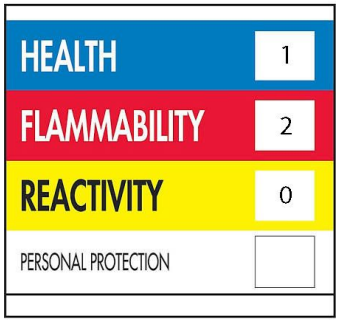
So, in order to read this diagram from the Klean Strip Odorless Mineral Spirits MDSDS sheet, the chemical has a **Fire Hazard** of a flashpoint that is below 200 degrees fahrenheit, a **Health Hazard** of Slightly Hazardous, and no concerns in terms of **Reactivity** or **Specific/Special Hazards**.

Second is the **HMIG Label**:
(HMIS stands for Hazardous Materials Identification Guide)



The meaning of the four colors in the label remain the same for these concerns:
RED: **Flammability**
YELLOW: **Reactivity**
BLUE: **Health**
WHITE: **Special/Personal Protection**

Each color will have a number to coincide what the risks are for each potential risk.
For example, the NFPA Diamond diagram for Klean Strip Odorless Mineral Spirits looks like this:



So, in order to read this diagram, Klean Strip Odorless Mineral Spirits have a **Fire Hazard** of a flashpoint that is below 200 degrees fahrenheit, a **Health Hazard** of Slightly Hazardous, and no concerns in terms of **Reactivity** or **Specific/Special Hazards**. Same information as the first diagram, just organized in a different manner.