MATERIAL SAFETY DATA SHEETS

. . . NOW CALLED

SAFETY DATA SHEETS

OSHA HAZARD COMMUNICATION STANDARD

- In March 2012, OSHA Standard 29 CFR 1910.1200 (the Hazard Communication Standard) was revised to incorporate the "Globally Harmonized System (GHS)"
  - The GHS focus is harmonizing worldwide criteria for classification of chemical hazards and communication through labels and Safety Data Sheets (SDS)
  - This is intended to improve understanding of hazard information on product labels and SDS

- The goal is to:
  - Identify intrinsic hazards in chemical substances and mixtures
  - Convey hazard information to users
  - More effectively prevent injuries and illnesses and save lives

Major changes to the Hazard Communication Standard

Hazard classification: Provides specific criteria for classification of health and physical hazards, as well as classification of mixtures.

Labels: Chemical manufacturers and importers are required to provide a label that includes a harmonized signal word, pictogram, and hazard statement for each hazard class and category. Precautionary statements must also be provided.

Safety Data Sheets: Now have a specified 16-section format.

Information and training: Employers are required to train workers on the new labels elements and safety data sheets format to facilitate recognition and understanding.

NEW HAZARD COMMUNICATION STANDARD

- **Signal Word**: a word used to indicate the relative severity of a hazard and to alert the reader to a potential hazard:
  - *Danger* for more severe hazards, and
  - *Warning* for less severe hazards

- **Pictograms:** symbols, on a white background with a red diamond border, that are intended to convey specific information about the hazards of a chemical.

PICTOGRAMS

Environment
(Non-Mandatory)

Aquatic Toxicity

Health Hazard

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

Flame

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

Corrosion

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

Exploding Bomb

- Explosives
- Self-Reactives
- Organic Peroxides

Gas Cylinder

Gases Under Pressure

Flame Over Circle

Oxidizers

Skull & Crossbones

Acute Toxicity (**fatal or toxic**)

Warning Symbol

- Irritant (skin & eye)
- Skin Sensitizer
- Acute Toxicity (**harmful**)
- Narcotic Effects
- Respiratory Tract Irritation

Hazard Classification

- Three main types of hazard are defined:
    - Health Hazard
    - Physical Hazard
    - Environmental Hazard
- Each is divided into Hazard Classes
    - The Health Hazard includes oral toxicity, carcinogen, skin corrosion or irritation, allergen
    - The Physical Class includes explosives, flammables, pressurized containers
    - Environmental Hazard includes toxicity to aquatic life (acute & chronic), destruction of the ozone layer
- Hazard Classes are subdivided into Categories with Category 1 having the most severe hazard effect

Example: **The Health Hazard Class**

Hazard	Category 1	Category 2	Category 3	Category 4	Category 5
LD_{50} (mg/kg)	≤ 5	$> 5 - \leq 50$	$> 50 - \leq 300$	$> 300 - \leq 2000$	$> 2000 - 5000$
Pictogram	☠	☠	☠	!	None
Signal Word	Danger	Danger	Danger	Warning	Warning
Hazard Statement	Fatal if swallowed	Fatal if swallowed	Toxic if swallowed	Harmful if swallowed	May be harmful if swallowed

This table shows the Acute Oral Toxicity Health Hazard Class with Hazard Categories 1 through 5, the corresponding LD_{50}, the pictogram, the Signal Word and the Hazard Statement

Safety Data Sheet Elements contain . . .

- Standardized pictograms, hazard statements, signal words, and precautionary statements

- Recommended use of the chemical/material

- Restrictions on use

- Exact percentages of ingredients are required in most cases (some may give ranges)

- Conditions to avoid, and hazardous decomposition products

Example: **Safety Data Sheet for Purell**

- Hand Sanitizer is a personal care product

- It is safe for consumers . . . under normal use

- A SDS is not required for the consumer

- But in the VA workplace, a SDS must be present where these materials are used (offices, labs, etc.)

- The SDS shows that Purell is flammable (between >50-70% ethanol & 1-5% isopropanol) and a serious eye irritant

- Keep away from sparks, flames

- The Signal Word is *Warning*

SAFETY DATA SHEET

PURELL® Advanced Instant Hand Sanitizer

SECTION 1. IDENTIFICATION

Product name : PURELL® Advanced Instant Hand Sanitizer

Manufacturer or supplier's details

Company name of supplier : GOJO Industries, Inc.

Address : One GOJO Plaza, Suite 500
Akron OH 44311

Telephone : 1 (330) 255-6000

Emergency telephone : 1-800-424-9300 CHEMTREC

Recommended use of the chemical and restrictions on use

Recommended use : Hand Sanitizer

Restrictions on use : This is a personal care or cosmetic product that is safe for consumers and other users under normal and reasonably foreseeable use. Cosmetics and consumer products, specifically defined by regulations around the world, are exempt from the requirement of an SDS for the consumer. While this material is not considered hazardous, this SDS contains valuable information critical to the safe handling and proper use of the product for industrial workplace conditions as well as unusual and unintended exposures such as large spills. This SDS should be retained and available for employees and other users of this product. For specific intended-use guidance, please refer to the information provided on the package or instruction sheet.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids : Category 3

Eye irritation : Category 2A

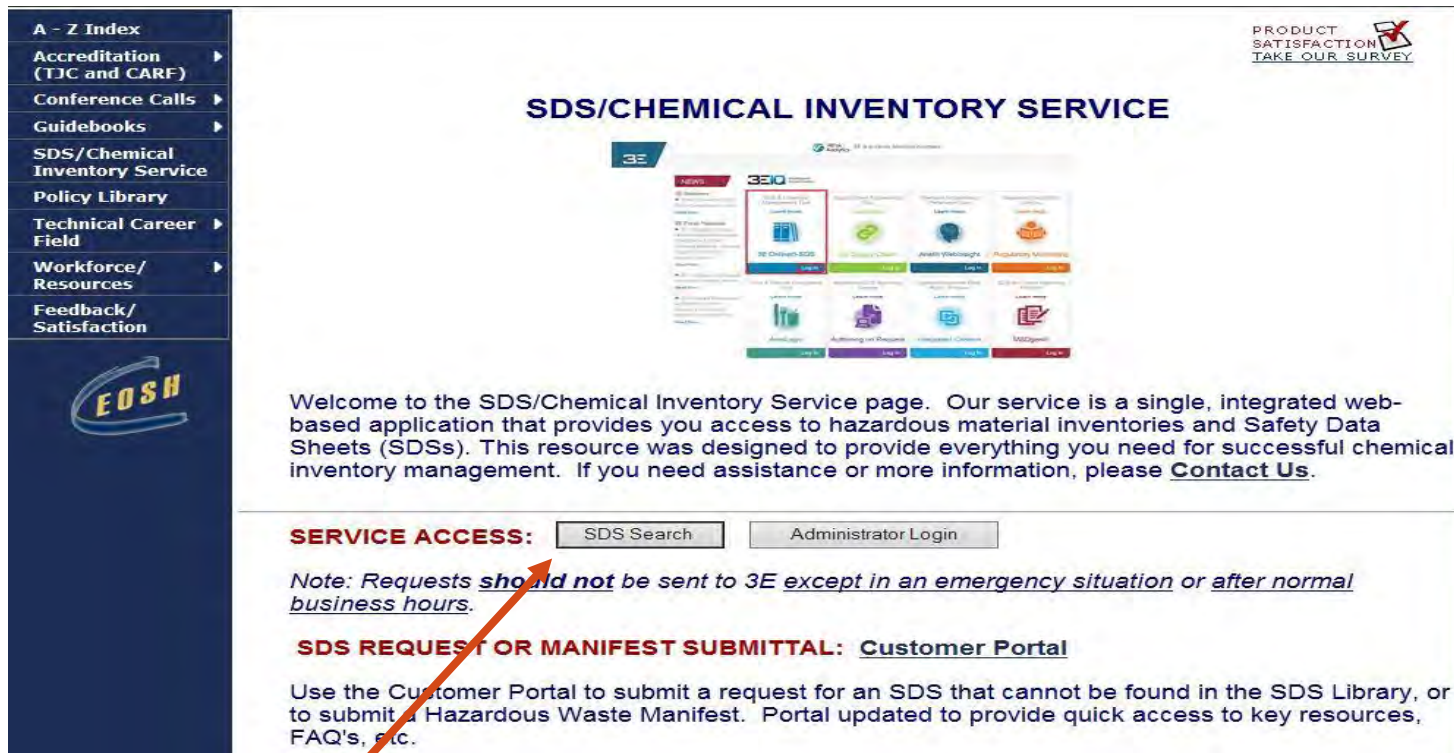**GHS Label element**

Hazard pictograms :

Signal Word : Warning

Hazard Statements : H226 Flammable liquid and vapor.
H319 Causes serious eye irritation.

To locate a SDS using VA computers

CEOSH Webpage

http://vaww.ceosh.med.va.gov/ceosh/MSDS.shtml

Click on SDS Search

Enter the chemical (e.g., picric acid) or product under *Search for* and click on Search
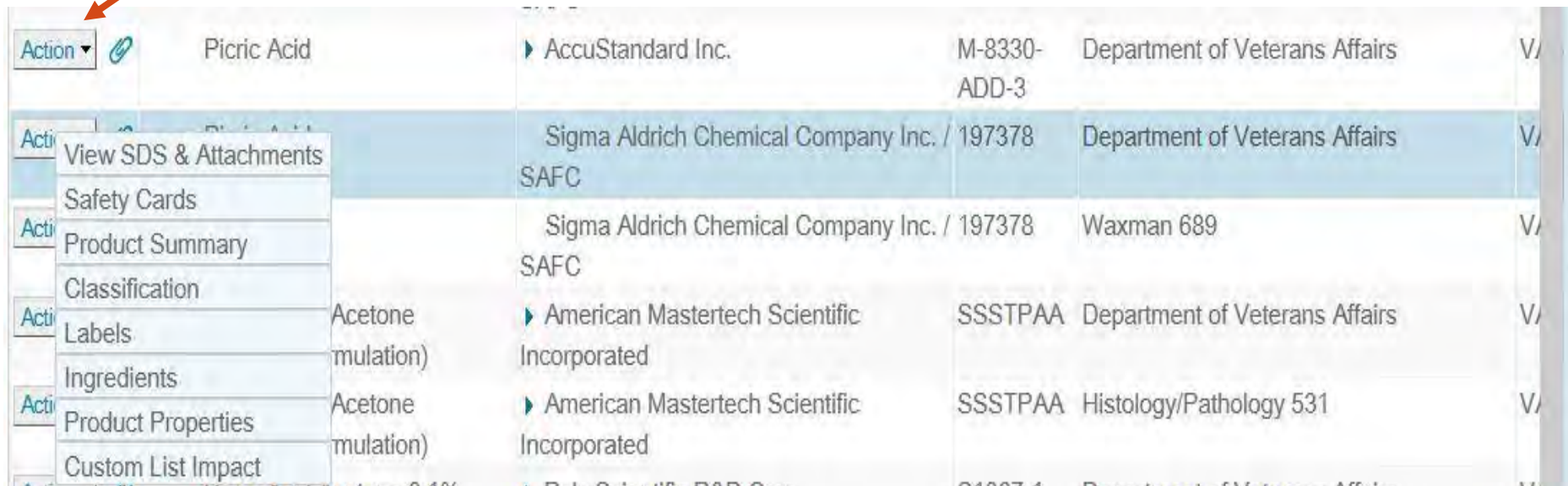
The following pages show product, manufacturers and "Action"

Search · Show All · Q Simple Search

Items

action	📎 🧪	Product Name ▲	Manufacturer Name	Mfg Part #	Location
Action ▾	📎	▶ Picric Acid	▶ Sigma Aldrich Chemical Company Inc. / SAFC	239801	Bose E367-1 573
Action ▾	📎	Picric Acid	▶ Sigma Aldrich Chemical Company Inc. / SAFC	80452	Department of Veterans Affairs
Action ▾	📎	Picric Acid	▶ Sigma Aldrich Chemical Company Inc. / SAFC	80452	(B114) Room 230 691
Action ▾	📎	Picric Acid	▶ Sigma Aldrich Chemical Company Inc. / SAFC	80452	Research 662
Action ▾	📎	Picric Acid	▶ AccuStandard Inc.	M-8330-ADD-3	Department of Veterans Affairs
Action ▾	📎	Picric Acid	Sigma Aldrich Chemical Company Inc. / SAFC	197378	Department of Veterans Affairs
Action ▾	📎 ✓	Picric Acid	Sigma Aldrich Chemical Company Inc. / SAFC	197378	Waxman 689
Action ▾	📎	Picric Acid / Acetone (Traditional Formulation)	▶ American Mastertech Scientific Incorporated	SSSTPAA	Department of Veterans Affairs

Click on "*Action*" to view a number of available options, including "View SDS"

More information on SDSs can be found here:

HazCom Webpage

http://www.osha.gov/dsg/hazcom/index/html