Centurion Safety Education

ONTHLY REFRESHER TRAINING
Safety Data Sheets (SDS)

January – Week 4

A Safety Data Sheet (SDS) is the official "instruction manual" for a chemical. It explains the hazards, the required controls (PPE/ventilation), what to do in an emergency, and what not to mix it with.

The big advantage: SDS are standardized. No matter who makes the chemical, the SDS follows the same basic format so workers can find information quickly, especially during a spill, splash, or exposure.

OSHA requires employees to know:
How to read and understand hazard labels
Understand Safety Data Sheets
SDS must be available for every chemical used in the workplace.
Every container used to store a chemical must be labeled.

On site:

- SDS must be available for every chemical used in the workplace.
- Every container used to store a chemical must be labeled.
- Employees must know how to read hazard labels and how to use an SDS to work safely.

The Sixteen Sections

1. Identification
2. Hazard(s) identification
3. Composition/information on ingredients
4. First-aid measures
5. Fire-fighting measures
6. Accidental release measures
7. Handling and Storage
8. Exposure controls/personal protection
9. Physical and chemical properties
10. Stability and reactivity
11. Toxicological information
12. Ecological information
13. Disposal considerations
14. Transport information
15. Regulatory information
16. Other information

SDS "Hot Buttons"

You don't need to memorize section numbers. Match the situation to the title, then run the correct play.

1) First-Aid Measures — Someone got exposed.

Use when: splash to eyes/skin, breathing irritation, ingestion, symptoms after use.
Look here for: rinse time, immediate actions, symptoms to watch for, and when medical attention is needed.
Example (common mistake): Eye splash and someone says, "Just blink it out."
Correct move: eyewash + First-Aid Measures. Some products require extended flushing—seconds don't cut it.

2) Fire-Fighting Measures — Heat or flame is involved.

Use when: fire near product, product is burning, hot work nearby, overheating container. Look here for: what extinguishing media to use/avoid, special hazards, and protective equipment considerations. Example (why "fire is fire" is wrong):

- Electrical involvement: water can conduct electricity and increase risk.
- Flammable liquids: the wrong approach can spread a burning liquid.
- Some products produce toxic smoke when heated.

Correct move: notify → isolate → SDS → Fire-Fighting Measures → site emergency procedure.

3) Accidental Release Measures — Spill or leak.

Use when: any spill, leak, broken container, unknown liquid found.
Look here for: containment, cleanup method, PPE, ventilation needs, and "don't do this" warnings.
Example of classic bad instinct: "Mop it up and rinse it down the drain."
Correct move: Accidental Release Measures + site waste rules. Disposal isn't a guess.

IF there is an exposure, spill, fire involvement, or unknown reaction → THEN:
1) STOP the task
2) ISOLATE the area (keep others out, control access)
3) NOTIFY supervision / follow site emergency communication procedure
4) PULL THE SDS — no guessing
5) Use SDS section titles below to choose the correct response
6) REPORT & DOCUMENT per site procedure

Reminder: The NFPA diamond can give a fast heads-up. The SDS gives the instructions (response steps, PPE, hazards).

4) Stability and Reactivity — Reacting, fuming, or mixing risk.

Use when: strong odor appears, smoking/fizzing, heat, bubbling, or two products were used back-to-back.
Look here for: incompatibles and conditions to avoid (heat, mixing, acids/bases, oxidizers, moisture, etc.).
Example: Two cleaners were used back-to-back and now there's a sharp, choking odor and coughing.
Correct move: back out → isolate → notify → SDS → Stability and Reactivity.
Do not "fix it" by adding another chemical.

5) Exposure Controls / Personal Protection — What do we wear / what controls do we need?

Use when: before cleanup, before re-entry, before starting a task, or when conditions change.
Look here for: PPE, ventilation needs, exposure limits, and safe work practices.
Remember: cleanup is a chemical task, not "just housekeeping."

Mixing/Sequence Hazards

Most chemical incidents aren't caused by one "bad product." They happen when two normal products are used back-to-back and create a new hazard.

If you're about to use Product B after Product A, you're in: Stability and Reactivity (and often Handling and Storage).
Common mixing/sequence hazards

- Bleach + acids can release chlorine gas.
- Bleach + ammonia-type cleaners can create chloramine vapors.

These vapors can irritate or injure your eyes, throat, and lungs. Treat burning eyes, coughing, chest tightness, wheezing, or breathing trouble as an exposure and not "just a smell."

RED FLAGS BOX — Treat it like an exposure

If any of these happen after chemical use (especially after back-to-back products):
• Burning/watering eyes
• Sharp, choking odor
• Coughing, wheezing, chest tightness
• Dizziness/headache in a tight area

Action: back out → fresh air → notify → pull SDS → First-Aid Measures + Stability and Reactivity → follow site emergency procedure.

Game-Day Scenarios

Scenario 1: "Small spill" in a tight area
A few ounces spill. Strong odor. People want to "just absorb it."
Correct play: STOP → isolate → notify → SDS → Accidental Release Measures → confirm PPE in Exposure Controls / Personal Protection → clean/dispose per procedure.

Scenario 2: "I'm fine" eye splash
A drop splashes near the face/eye. Worker says, "I'm good."
Correct play: SDS → First-Aid Measures → flush per guidance → report/document. No waiting.

Scenario 3: "Fire is fire"
Small flame near a solvent wipe station. Someone reaches for a hose.
Correct play: notify → isolate → SDS → Fire-Fighting Measures → follow site emergency response. Don't assume water is the answer.