



Safety Meeting Outline



SMO 03-0101

IT'S ALL "GREEK" TO ME ...GASES, FUMES, VAPORS AND MISTS

By SeaBright Insurance Loss Control

Most of us are familiar with Material Safety Data Sheets, or MSDS's as they are called. By law, they have to be available to all employees upon request and must be accessible in the work place for reference. These are source documents published by manufacturers of hazardous materials. They tell us what we need to know about protecting ourselves from chemical harm. However, one's understanding depends upon knowing a few basic technical definitions in order to achieve adequate protection. This will help us use the right form of protection based upon the hazardous exposure involved.

When measuring particles suspended in the air, the established "safe" levels of exposure are measured in "parts per million" or milligrams per cubic meter of air. These terms are abbreviated "ppm" and "mg/m³." These levels are so small they take special equipment to accurately measure. Generally speaking, the higher the number (which establishes the safe limit for exposure), the safer the material is thought to be. So 30 ppm is a much more hazardous level than a limit of 300 ppm. PPM is normally used to measure gases or vapors, whereas milligrams is a measure of weight (of a solid) in air.

Let's look at some key terms that describe the categories of hazardous materials themselves:

Dusts—These are solid particulates. They may be harmful even if the substance itself is not toxic. Coal, sand and even wood for example, can be dangerous if dust particles are breathed in excessive amounts.

Fumes—Frequently confused with "vapors," these are actually solids that have become vaporized by extreme heat, as in welding. The "smoke" curling up from the torch tip is nothing but metal which cools into solid particulate "fumes."

Gases or Vapors—Gases are usually "gaseous" at room temperatures. Vapors are normally found as liquids at room temperature but both may evaporate, becoming "vapors" or "gases."

Mists—Vaporized liquids, like steam or oil, are defined as "mists." Oil mists are frequently encountered in machine shops.

Understand these technical terms and you will be able to better read and understand the Materials Safety Data Sheets that are provided for your safety education. It could make a difference in your life and health.



SAFETY MEETING AGENDA

DEPARTMENT/JOB SITE: _____ MEETING DATE: _____

1. **Open Meeting & Present safety topic:** _____
2. Read minutes from previous meeting.
3. **Persons present:**

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

4. **Old Business** – Status of previous recommendations. Discuss pending old business if any.

5. **Accidents** – Discuss accidents and near misses that have occurred since the last meeting. Brief summary of accidents to date by number and type. Note any trends. Discuss corrective action taken, or needed. Concentrate on accident causes to make everyone more aware.

6. **Inspection Reports** – Report on findings and recommendations of any inspection reports made since last meeting.

7. **New Business** – Solicit employee suggestions. Discuss new procedures, changes to company safety policy, etc.

TIME MEETING STARTED: _____ TIME FINISHED: _____

MEETING CHAIRED BY: _____ TITLE: _____