

Tempe Fire Department Policies and Procedures

Spill Absorption

409.06

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SAFESTEP

Safestep is an inert, inorganic blend of siliceous and other minerals, insoluble in practically all solvents and strong mineral acids (except hydrofluoric). Safestep is non-combustible and non-toxic to humans and the environment.

Safestep is used for spill absorption. It immediately picks up and retains with minimal leaching - oils, petro-chemicals, acids, caustic solutions, organic compounds, inorganic chemicals, PCBs, and other toxic and hazardous waste. Safestep even draws a portion of the spill from porous surface through capillary action. Thus, Safestep leaves a clean, dry, and non-slick surface on any type of interior or exterior flooring or deck.

Safestep's fast action and complete sorption makes spill areas immediately reusable and minimizes danger from flammability or exposure to toxic fumes.

Substances Absorbed by Safestep

Based on the chemicals' inert nature of Safestep, it is believed that Safestep can be used effectively on the following cercla functional groups.

Acids, Inorganic	Halides, Inorganic
Acids, Organic	Heavy Metals
Alcohols and Glycols	Hydrazines
Aldehydes	Ketones
Aliphatics	Nitro Compounds
Aliphatics, Halogenated	Nitroso Compounds
Amides	Olefins
Amines, Alkyl	Organophosphates
Amines, Aryl	Oxides, Alkylene
Aromatics	PCBs
Aromatics, Halogenated	Peroxides
Caustics	Phenols and Cresols
Cyanates	Sulfates
Cyanides and Nitriles	Sulfides and Mercaptans
Epoxides	Sulfites
Esters	
Ethers	
Halides, Alkyl	
Exceptions	

1. Hydrofluoric acids.
2. Concentrated peroxides should not be contracted with Safestep without prior testing for possible catalytic decomposition of the peroxides.
3. Safestep's possible effect upon hydrazines should also be considered.

Application of Safestep

Wearing full protective clothing or chemical protective clothing approach the spill.

- A. Encircle spill with Safestep, especially if spill is spreading or of a continuous nature. Then cover spill with Safestep; Safestep is an effective diking material.

- B. Without waiting, sweep Safestep through the spill, use a stiff broom or shovel for large or for very viscous spills.
- C. Safe clean up and proper disposal of contaminated Safestep is the responsibility of the business or property owner. The responsible party may wish to make arrangements with a chemical waste disposal company for proper disposal or may have the expertise to carry out disposal themselves.
- D. Remember any tools or equipment that have come in contact with the contaminated Safestep will have to be properly decontaminated.

Tempe Fire Department has Safestep on Haz Mat-72 and will have some in storage at Station #2. Back up supplies are available from the City of Tempe Field Services (Streets). This should be requested from the incident commander.

OTHER ABSORBENTS

The Hazardous Materials Response Team does carry other types of absorbent, such as absorbent pads, booms, and activated carbon. As with Safestep, before utilizing any absorbent material, the compatibility of the absorbent and the spilled product must be determined.