SMU EHS Standard Operating Procedure for use of

FLAMMABLE LIQUIDS

Examples: ethanol, isopropanol, methanol, acetone, n-hexane, pentane

HAZARDS	**Potential Hazards**	• Vapors can produce **fire** and **explosion** if ignited • Some flammable solvents can affect **health**. See toxic chemicals guidelines. • See Safety Data Sheet (SDS) for specific hazard information.
HAZARD CONTROLS	**Selection and Purchase**	• Purchase the **smallest containers** at the **lowest concentration** practical. • Purchase in **shatter-resistant containers** if available.
	Storage and Transportation	• Store **away from oxidizers**; see SDS for other storage incompatibilities. • Store in a **flammables cabinet** if possible; no more than 10 gallons outside of approved flammable storage cabinets. • **Do not** store in a **standard refrigerator** or **cold room**. • Store **below eye level** but **not on the floor**. • **Transport** in a **bottle carrier**.

	Engineering Controls	• Work in a **chemical fume hood if:**
		  ○ The chemical is irritating to the eyes or respiratory system, or hazardous by inhalation.
		  ○ Air concentrations could reach or exceed 10% of the Lower Flammable Limit.

	Work Practice Controls	• Know the location of the nearest **fire extinguisher**. • Use the smallest practical quantities for the work being performed. • **Avoid** using near sources of **ignition** or **static electricity**. • **Ensure proper grounding**. Be sure to ground metal containers when transferring flammable liquids. • **Close containers** when not in use to prevent vapor escape.
	Personal Protective Equipment (PPE)	**Minimum PPE**: • Fastened lab coat • Safety glasses • Appropriate gloves **Risk of splash or large amounts, add**: • Chemical splash goggles and face shield • Flame-resistant lab coat • Avoid wearing flammable clothing. ***Consult the manufacturer's glove guide for effectiveness with the chemical.***
OTHER	**Waste**	Collect and store according to SMU Hazardous Waste guidelines.
	Training	Sign Laboratory Specific Training document to indicate understanding of this SOP.
	Questions	Contact Environmental Health and Safety at 214-768-2430.
	Additional Guidelines	Please complete page 2 for additional laboratory-specific guidelines

Laboratory-specific chemicals and procedures: