Safe Handling, Storage and Personal Protective Equipment

Handling:
- Open container/vessel slowly.
- Bond and ground all equipment when transferring solvents. Avoid spark, flame, electrical sources, hot surfaces, etc. (Refer to AFI standard 2003).
- Avoid confined spaces such as tanks or pits (consult ASTM D-4276 and 29CFR 1910.146). Use where airflow and ventilation are adequate.
- Minimize skin/inhalation exposure; wash thoroughly after handling.
- Do not wear contaminated clothing or shoes. Keep contaminated clothing away from sources of ignition such as sparks or open flames.
- “Empty” containers can retain residue. Treat them like they contain material (refer to OSHA Guidelines and ANSI Z49.1).

Storage:
- Keep containers tightly closed.
- Store in cool, dry, well-ventilated areas away from heat, direct sunlight, hot metal surfaces, and all sources of ignition.
- Post area “No Smoking or Open Flame.”
- Store only in approved containers.
- Keep away from any incompatible material. (Refer to MSDS).
- Protect container(s) against physical damage.
- Outdoor or detached storage is preferred.
- Indoor storage should meet OSHA standards and appropriate fire codes.

Exposure Controls/Personal Protection

Engineering controls:
Maintain airborne concentrations below the established exposure limits.
Use explosion-safe electrical systems as needed (consult appropriate fire and electrical codes).
Line sizes should be sufficient to avoid high-flow velocities (refer to NFPA 77).
The seals and gaskets in the operating system and equipment should be compatible with hydrocarbon solvents and the operating conditions (consult the seal and gasket manufacturers for compatibility).

Personal Protective Equipment (PPE):

Respiratory:
- When airborne concentrations are expected to exceed exposure limits, a NIOSH-certified air purifying respirator with an organic vapor cartridge should be used.
- A NIOSH-approved self-contained breathing apparatus (SCBA) or equivalent operated in a pressure demand or other positive pressure mode provides superior protection.
- Use SCBA if there is potential for an uncontrolled release; exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.
- A respiratory protection program that meets OSHA’s 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed wherever workplace conditions warrant a respirator’s use.

Skin:
- Use impervious gloves, apron and/or arm covers as needed to prevent skin contact, possible irritation, absorption and skin damage. Impermeable materials are nitrile, polyvinyl alcohol or Viton® (see glove manufacturer literature for information on permeability for each application).

Eye/Face:
- Use a face shield and chemical goggles to safeguard against potential eye contact, irritation or injury.

Other:
- A source of clean water should be available in the work area for flushing eyes and skin.

Class 3 Flammable Liquids

Unusual Fire & Explosion Hazards:
- This material is extremely flammable and can be ignited by heat, sparks, flames or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment and electronic devices such as cell phones, computers, calculators and pagers which have not been certified as intrinsically safe).
- Vapors may travel considerable distances to a source of ignition where they can ignite, flash back or explode.
- May create vapor/air explosion hazard indoors, in confined spaces, outdoors in or near buildings.
- Vapors are heavier than air and can accumulate in low areas.
- If container is not properly cooled, it can rupture in the heat of a fire.

Extinguishing Media:
- Dry chemical, carbon dioxide or foam is recommended.
- Water spray is recommended to cool or protect exposed materials or structures.

Fire-Fighting Instructions:
- For fires beyond the beginning stage, emergency responders in the immediate hazard area should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces, or when explicitly required by DOT, a self-contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant.
- Isolate immediate hazard area.
- Keep unauthorized personnel out.