Texan Minerals and Chemicals LLC

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Mineral Spirits	No	No	No	No
Trichloroethylene	Yes	Yes	No	Yes
Perchloroethylene	Yes	Yes	No	Yes
Xylene	Yes	Yes	No	No
Glycol Ether EB	Yes	Yes	No	No

Terpene Vapor Emissions and Odor

Since terpene odors are easily detectable, it is sometimes thought that terpenes rapidly vaporize, leading to high vapor concentrations in the air. This is because the odor threshold (level at which terpenes can be detected by smell) can be as low as 1 part-per-million (ppm). This is much lower than many traditional industrial solvents. However, Bio Paraffin Solv has a very low volatility which means very low vapor concentrations occur during use. Despite this fact, adequate ventilation is always required in the workplace.

An indication of the relative vapor exposure hazard of a solvent is a ratio called the Inhalation Hazard Index (IHI). This parameter is defined as the ratio of the saturated vapor concentration at 20ºC to the American Conference of Industrial Hygienists (ACGIH) TLV-TWA. The higher the ratio, the quicker the vapor concentration will approach the maximum safe concentration, at which point it can become a potential health risk. The following table compares the IHI for several common solvents. Note that Bio Paraffin Solv, has a lower (safer) value than other high performance industrial solvents:

Inhalation Hazard Index for Industrial Solvents

	Vapor Pressure (mmHg @ 20°C)	TLV-TWA (ppm)	Inhalation Hazard Index	Odor Threshold (ppm)
Bio Paraffin Solv	2	100	25	1
Mineral Spirits	2	100	25	800
Glycol Ether EB	0.9	25	46	20
Xylene	9.5	100	125	20
Perchloroethylene	13	50	342	50
1,1,1-Trichloroethane	100	350	376	400
Methyl Ethyl Ketone	85	200	559	25
Trichloroethylene	59	50	1552	250

Toxicity

Most terpenes are non-toxic by OSHA standards. Many have been extensively tested by the Flavor Extracts Manufacturers Association (FEMA) and other groups. Refer to the SDS for current data.

Product Packaging / Container Suitability

Terpenes are very aggressive solvents and care must be taken in choosing containers for terpene products.

Polyethylene bottles typically do not perform well with terpenes. Although the polyethylene is not weakened, the terpene solvents diffuse through the sides of the container. High density polyethylene (HDPE) bottles, which have been fluorinated, may be used.

Florachem has found that PVC or PET bottles perform well for cleaners containing terpene solvents but they will still show some permeation over long storage periods.

Contact your container supplier for more information.

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Safe Handling of Terpene-Soaked Rags

It is widely known that oily rags may spontaneously combust when placed in containers. Terpene-soaked rags are no exception. To prevent this, terpene-soaked rags should be washed or submerged in water (a small amount of soap or detergent added will cause the rags to wet more easily).

Flash Point and Safety

Most terpene solvents are considered flammable or combustible. However, unlike traditional flammable solvents like MEK and acetone, their flash points are sufficiently high enough to permit safe use in most applications. OSHA regulations require that solvents in artificially heated dip tanks be maintained at a maximum temperature 50°F below their flash points. Please refer to SDS.