What is claimed is:

1. A method of drying hydrazine to water levels below 1 ppb, comprising contacting hydrazine with an ionic liquid thereby forming a hydrazine/ionic liquid mixture;

suppressing the gas phase moisture levels in said hydrazine/ionic liquid mixture by changing the partitioning of water between the gas and liquid phase of said hydrazine/ionic liquid mixture.

2. The method of claim 1, wherein said ionic liquid is a standard ionic liquid.

3. The method of claim 1, wherein said ionic liquid is an acidic ionic liquid.

4. The method of claim 1, wherein said ionic liquid is an acidic water reactive ionic liquid.

5. The method of claim 1, wherein said ionic liquid is a basic ionic liquid.