

SHELF LIFE STATEMENT – SOLVENTS

(PPS298, Rev 4.1, 02/18, KMC)

Most solvents in their pure state have an indefinite shelf life if stored in unopened containers under proper conditions. Since many industries require expiration dating as part of their protocols, Greenfield Global USA Inc. assigns recommended retest dates to the products.

Variances to this recommended retest date policy are documented on a case-by-case basis. Retest periods are based on industry experience with Greenfield Global USA Inc. products and packaging materials. While the recommended retest date is provided as guidance for our customers, it is responsibility of the users to determine when and how to retest the product.

For the majority of chemicals, the "retest date" does not mean the product is no longer suitable for use or has "expired". In most cases a CofA with extended shelf life can be issued by our Quality Assurance Dept. and the material can be used. Retest dates follow common norms in the industry and have been determined based on over 30 years of experience with these products. Please note that there is no official "shelf life" or "stability data" for every product in every package. This is not the responsibility or obligation of the manufacturer but rather the end-user if this type of official data is required. We have from time to time conducted studies in a select number of packages for a small number of products. The results of those studies will be made available upon request under specific situations.

I. 5 Year Recommended Retest Date

Retest period for most common solvents is <u>five years</u> from the date of manufacture on the certificate of analysis. This includes almost all solvents in our catalog such as, Acetone, Methanol, IPA (2-propanol), Ethyl Acetate etc.

II. 3 Year Recommended Retest Date

Some chemicals offered by Greenfield Global USA Inc. have a recommended retest date of <u>three years</u> from the date of manufacture. These chemicals include:

Ammonium Hydroxide DiMethyl Sulfoxide Perchloroethylene Chlorobutane 1-Dimethylacetamide, n,n-Phosphoric Acid Potassium Hydroxide (pellets) Castor Oil Dioxane, 1.4-Propyl Acetate n-Chloroform Ethyl Ether Propylene Glycol Cyclohexane Glycerin Sodium Hydroxide (pellets) Dibutylamine Isopropyl Ether Methyl Ethyl Ketone Trichloroethylene Dichlorobenzene o-Methyl Tert-Butyl Ether Dichloromethane **Triethylamine** DiEthyl Phthalate Pentane n-Trimethylpentane

III. 2 Year Recommended Retest Date

Some chemicals offered by Greenfield Global USA Inc. have a recommended retest date of two years from the date of manufacture. These chemicals include:

Amyl Alcohol n- Ethanolamine Hydrochloric Acid Butyl Acetate n- Formalin Propionic Acid



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Diethanolamine Dimethyl Formamide Formic Acid Hexylene glycol TetraHydroFurane (stabilized) Trichlorobenzene, 1,2,4-

IV. 1 Year Recommended Retest Date

Some chemicals offered by Greenfield Global USA Inc. have a recommended retest date of <u>one year</u> from the date of manufacture. These chemicals include:

Benzyl Alcohol Butyl Alcohol secPyridine Sorbitol Solution Sulfuric Acid (in poly) THF (not stabilized)

N-Methyl Pyrollidone (NMP)

Recommended retest dates are recorded on Certificates of Analysis, but not on labels.

<u>Product integrity is highly susceptible to storage condition</u>. All solvents should be tightly sealed and stored in a consistent temperature in accordance with the applicable SDS. It is the end user's responsibility to monitor the storage conditions and their effects on the product.