

HALAL STATEMENT - ISOPROPYL ALCOHOL

(PPS380, Rev. 1.1, 02/18, KMC)

Isopropyl Alcohol (IPA) sold by Greenfield Global USA Inc. is synthetically derived by the by hydrogenation of acetone. This process converts starting materials crude acetone and hydrogen into isopropyl alcohol in the presence of hydrogenation catalyst. A multistage distillation process performs separation and purification of the final product.

Isopropyl Alcohol (IPA) does not have a formal Halal certification; however based on the following process statements it meets the basic requirements of Halal:

- Raw materials used in manufacture of Isopropyl Alcohol (IPA) are not of animal nor enzyme origin.
- Raw materials do not contain nor come in contact with products of animal origin, yeast or ethyl alcohol at any point of the manufacturing process.
- Isopropyl Alcohol (IPA) production does not involve use of yeast, bacteria, enzymes or solvents in the manufacturing process.
- Manufacturing facilities producing and processing Isopropyl Alcohol (IPA) do not handle any products of animal origin.

HALAL refers to any object permissible to use according to Islamic Law. Determination of suitability of any Greenfield Global USA Inc. products for any application is at the discretion on the end users. Please contact your Halal Certification Authority to obtain definitive clarification of this matter.