



P R O D U C T I N F O R M A T I O N

GULF SOLUBLE CUTTING OIL

General Qualities & Characteristics

Gulf Soluble Cutting Oil is a specially compounded emulsifying cutting oil composed of a petroleum oil and special emulsifiers. It mixes readily with hot or cold water. It forms homogenous and exceptionally stable emulsions, which show no apparent separation after long periods of usage or storage. It also incorporates special biocides to increase coolant life and prevent unpleasant odors experienced as a result of bacterial infection. Meets the specification requirements of IS 1115-1986 and DEF STAN 91-23/1 (Grade ZX-1).

Application Requirements

Metal cutting and grinding operations generate heat. The prime requirement, therefore, is to select a fluid, which will reduce generation and increase dissipation of heat. The effectiveness with which this is accomplished has a direct bearing on increasing feed, speed, tool life, and improving surface finish. An efficient and economical way to control heat is to use the excellent cooling properties of water combined with the lubricating properties of oil. Additionally, an effective cutting and grinding fluid must contain anticorrosion properties to protect the workpiece during the manufacturing processes. Another characteristic which enhances its usefulness is stability, whether in use or in storage.

Recommendations

Gulf Soluble Cutting Oil is preferred choice for grinding and for machining operations where cooling is of utmost importance. It meets the basic application requirements described above in a highly satisfactory and economical manner.

Gulf Soluble Cutting Oil is usually diluted to oil/water ratios ranging from 1:10 to 1:60. Because there are so many variables to be considered from job-to-job, it is impractical to make a specific recommendation of optimum oil to water ratios. However, in general, the richer emulsions are used for the more difficult jobs, the intermediate for the free-machining metals and the lean mixtures are used for such operations as grinding, where massive cooling is required.

When preparing emulsions of **Gulf Soluble Cutting Oil**, always add oil to water. Stability of the emulsion is enhanced when it is put through a homogenization processes.

Typical Properties

Viscosity, cSt, at 100°C	6.18
Pour Point, deg C	-15
Flash Point, COC, deg C	150
Color	L 4.0