



PRODUCT INFORMATION

GULF EMULSIL NA

General Qualities & Characteristics

Gulf Emulsil NA is a specially compounded emulsifying cutting oil composed of 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 Emulsil NA 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 Emulsil NA 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 not practical 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 Emulsil NA**, 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

Properties mentioned above are typical only and minor variations, which do not affect the product performances, are to be expected in normal manufacturing. The above information is based on past history of the grade only and must not be construed as a guarantee of performance. Follow equipment manufacturer's recommendations for performance level and viscosity grade. The Material Safety Data Sheet for this product is available with your nearest Gulf office.

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