## LUKOIL FREO GP 2020

## Semi-synthetic metalworking fluid

## Product description

High quality semi-synthetic metalworking fluid, developed for application in systems, where high resistance to bacterial attack and emulsion stability are required. Based on multifunctional additives, which provide high anti-corrosion and tribological characteristics, high resistant to microbiological attack and high speed of emulsification in water of wide range of total hardness. Does not contain chlorine.

## Application

Intended for use in centralized systems and in individual machining centers. Emulsion is suitable for abrasive operations and for general machining operations of light and medium loading. Processed materials: cast iron, low carbon and carbon steel, alloy steel.

## Benefits

CORROSION PROTECTION
Excellent anti-corrosion properties
EXTENDED DRAIN INTERVAL
Long life even in highly contaminated systems
EMULSION STABILITY
Forms a stable emulsion even in case of mixing with water of high hardness

The product name in an order: Metalworking fluid LUKOIL FREO GP 2020, STO 79345251-257-2020
Typical test data
The information given in the typical data does not constitute a specification and can be affected by allowable production tolerances. The right to make modifications is reserved by 000 «LLK-International»

| Property | Test methods | Value |
| :--- | :--- | :---: |
| Appearance | - | Homogeneous oily liquid |
| pH $5 \%$ emulsion in water of total hardness | GOST 6243 p .4 | $8,5-10$ |
| $4.6 \mathrm{mg} \cdot \mathrm{eq} / \mathrm{dm} 3$ |  | 0 |
| Corrosion preventing characteristics of $4 \%$ <br> hardness of $4.6 \mathrm{mg} \cdot \mathrm{EO} / \mathrm{dm} 3$ for 2 h, points, not more than |  |  |
| Refractometer correction factor | - | 3.1 |

Recommended concentration of emulsion

| Operation type | Emulsion concentration, \% |
| :--- | :--- |
| Abrasive | $4-5$ |
| General machining | $4-7$ | www.lukoil-masla.ru

