

### TECHNICAL DATA SHEET

# **MULTI-PURPOSE** OIL

### FOR GEAR REDUCERS, CHAINS AND GEARS

### **DEFINITION**

Technologically-advanced, extra-adherent NANOLUBRICANT®-based liquid lubricant for open gears, chains,

#### **ADVANTAGES**

Liquid lubricant for cables and open gears.

Withstands high temperatures under heavy loads (ex. gear teeth on ore crushers and cement works) Contains chemically-bonded additives to improve adherence.

Anti-corrosive, extreme-pressure and anti-wear properties are improved by the inclusion of NANOLUBRICANT®. No gap formation when using splash lubrication.

Reduced noise level and energy requirements.

Water-resistant and highly adherent.

### **APPLICATION FIELDS**

Splash lubrication of gears and cables Lubrication

of cables and strands

Open gears: cranes used in construction and ports Open

gears of ball mills for crushing ore

Chains and conveyors in humid environments

Gearboxes

Cables and drives: cable cars, bridge cranes, etc. Bearings, plain bearings and gear reducers

### **TECHNICAL CHARACTERISTICS**

Aspect	opaque liquid	
Viscosity		
Colour	black	
Nature of additives	NANOLUBRICANT®	
4-ball EP test 1 hour@ 40 kg	0	
Density	0.81	
EMCOR anti-corrosion test (NFT 60-135)		
Use		

CO<sub>2</sub> aerosol with 97% active product.

ORAPI® cannot know about every application for which the products are used nor their conditions of use. ORAPI® cannot be held responsible for the suitability of the products for a given use or a specific purpose. The information contained here can on no account be a substitute for the preliminary tests which are essential and must be carried out to check the suitability of the product to each specific case.

NANOLUBRICANT®: the high-performance technology. Increases the lifetime of each lubrication and the resistance to load. Reduces wear, energy consumption and friction.

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### 2020 – MULTI-PURPOSE OIL

### TECHNICAL DATA SHEET

### **METHOD OF APPLICATION**

Apply to clean and dry metal parts.

#### **STORAGE**

No special storage conditions are required.

### **PACKAGING**

650 ml aerosol ref. 42020A4 ref. 22020J1 5 I jerry can 1 I spray bottle ref. 22020i4

### **PROOF FROM TESTING**

This product was developed based on research and the results obtained by the Ecole Centrale de Lyon - LTDS and the INS Laboratory on Nano-particles.

	STANDARD OIL	MoS2 OIL	NANOLUBRICANT 2020
Average recommended reapplication time on a gear reducer	4 times a year	2 times a year	Once every 18 months
Service life of a chain used in an aggressive environment without re-lubrication	< 6 months	12 months	> 18 months
Noise level measured on a 1-2 T paste mixer	80 decibels	70 decibels	< 50 decibels

## Preventing shaft wear 5.85 GPA/4,300 rpm



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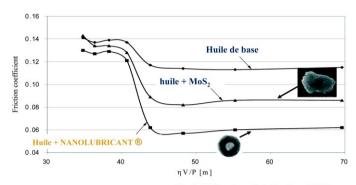
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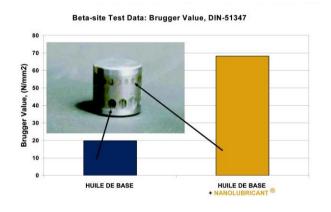
Manufacturing site and registered office - Parc Industriel de la Plaine de l'Ain - 5, allée des Cèdres -

## Friction coefficient drop-off



(Thesis, R. Greenberg, Technion, Israel, 2002)

## Wear and tear drop-off



BASE OIL BASE OIL + NANOLUBRICANT®

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