

LUBRICANT OIL BLENDING PLANT



**GULF NATIONAL OIL
SOHAR, OMAN**



About us

- **Gulf National Oil is a Lubricant Oil manufacturer and trader of lube oil in Oman for more than five years.**
- **As the market demand increases, and also to meet out all the customer needs GNO established manufacturing plant blending capacity about 20 metric tons per day.**
- **Our manufacturing plant is designed and operated with new technology of lubricating oils included the filling & packing fully automated modern systems.**

Company Vision

Gulf National Oil Company (GNO) has been established to play and involve into the business market of the Producing, trading sectors of many Lubricating oils , in additional to achieving actual targets and benefits via real points here below:

Company Targets:

- Our main goal is to manufacture various kinds of lubricants and greases for automotive and industrial uses in Sultanate of Oman.
- Work on marketing of lubricating oils in Sultanate of Oman and increase sales in the markets locally and outboards, with complying of instant delivery timing.
- Producing and provide high quality lubricating oil products to the customers in high efficiency and a proper cost where it leads to efficient competency for delivery our products throughout local and outboard markets.
- Keep our products within the international standards specification.
- Maintain and improve our lubricating oil products within high standards classification that lead to client satisfaction.



Company Value

Company Value :

- Improved Culture
- Enhance Reputation
- Processes Optimization
- Asset integrity
- Improved HSE
- Cost Reduction

Company Competency

- Awareness
- Understand the Required Rules and Regulation
- Identify, listing, and finding the proper solution
- Sharing sensibly about the consultations and opinion
- Know where to look for additional information.
- Apply, follow up implement by a professional and accurate means
- Enhance, develop, and improve the skills of Staff creation

PRODUCT OVERVIEW

Lubricants

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graph TD; Lubricants --> Automotive_lubricants; Lubricants --> Industrial_Lubricants; Automotive_lubricants --> Petrol_Engine_oil; Automotive_lubricants --> Diesel_Engine_oil; Automotive_lubricants --> Gear_Oils; Industrial_Lubricants --> Hydraulic_oils; Industrial_Lubricants --> Power_Transmission_oils; Radiator_Coolant;
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Automotive lubricants

Petrol Engine oil

Diesel Engine oil

Gear Oils

Industrial Lubricants

Hydraulic oils

Power Transmission oils

Radiator Coolant

GNO PRODUCTS

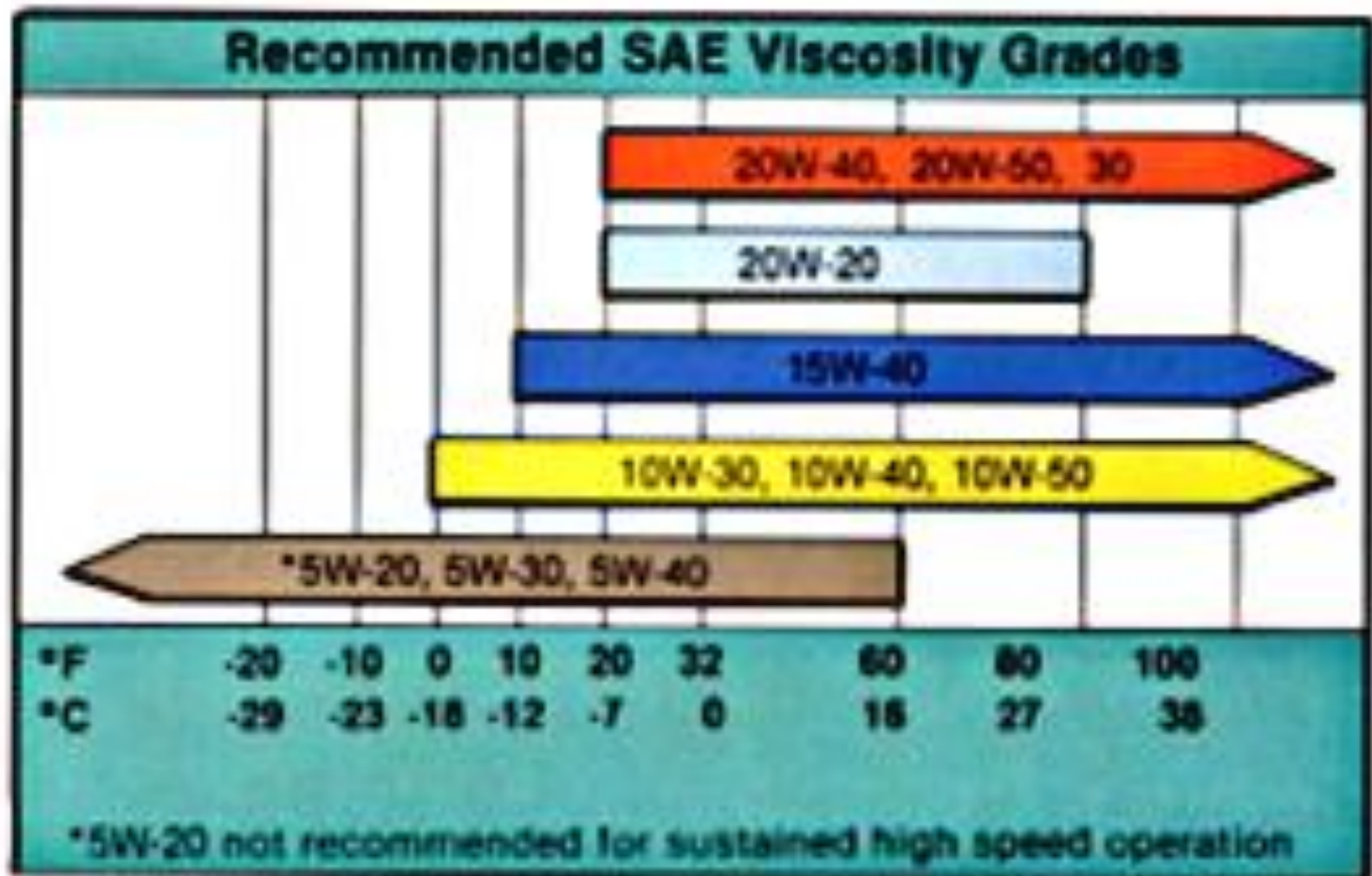
- **Diesel Engine oils** – SAE 15W40 CH4/CI4 (multigrades)
SAE 20W50 CH4/C14
SAE 30/40/50 CF/CD (monograde)
- **Petrol Engine Oils** – SAE 20W50 SF/CD,SJ/CF,SL/CF & SN/CF
SAE 5W30 SN/CF,
SAE 0W20 SN
SAE 10W30 SM & SN/CF
- **Outboard Engine Oil** – SAE 30G
- **Hydraulic Oils** – ISO VG32, VG 46, VG 68, Hyd 10W
- **Gear Oils** – SAE EP 90 , SAE EP 140
- **Power Transmission oils** – ATF Dextran II
- **Radiator Coolant**
- These all types of products have different packing size of 1le,4le,5le,20le,210le,
(Plastic as well as Steel).
- * All of our products are blended with 100% virgin base oil.

International Standard Codes

- SAE - Society of Automotive Engineers
- ISO - International Standards Organization
- API - American Petroleum Institute
- ACEA – Association Constructors Europeans Automobiles
- JASO – Japanese Automotive Standards Association
- ASTM – American Society Testing Mechanical



Oil Viscosity Chart



API –American Petroleum Institute Ratings

Category	Related Ind Definitions	Engine Test Requirements		
SG	1989 Models	CRC-L-38 Sequence VE	Sequence IID Caterpillar IH2	Sequence IIIE
SH	1994 Models	CRC-L-38 Sequence VE	Sequence IID	Sequence IIIE
<i>Category SA, SB, SC, SD, SE,SF,SG,SH have been declared as obsolete.</i>				
SJ	1997 Models	CRC-L-38 Sequence VE	Sequence IID	Sequence IIIE
SL	2001 Models	Sequence IIIF Sequence VIII	Sequence IVA	Sequence VG
SM/SN	2004 & NEW current Models	Sequence IIIG Sequence VIII	Sequence IVA	Sequence VG
<i>Category SJ, SL, SM,SN are currently valid.</i>				

API –American Petroleum Institute Ratings

Category	Related Ind Spec	Engine Test Requirements		
CF-2	None	CRC L-38	Detroit Diesel 6V92TA	Caterpillar 1M-PC
CF-4	None	CRC L-38 Mack T-7	Cummins NTC-400	Caterpillar 1K
CG-4	None	CRC L-38 Mack T-8	Sequence IIIE RFTW	Caterpillar 1N
CH-4	None	Mack T8E RFTW	Sequence IIIE Mack T-9	Caterpillar 1P, 1K Cummins M 11
CI-4	None	RFTW EOAT	Cummins M11 EGR Mack T-8E, T-10	Caterpillar 1R, 1K Sequence IIIF
CI-4Plus	None	RFTW EOAT	Cummins M11 EGR Mack T-8E, T-10,T-11	Caterpillar 1R, 1K Sequence IIIF

CA to CE obsolete; CF onwards are currently valid

RAW MATERIALS

1. BASE OIL

REFINED LONG CHAIN HYDROCARBONS
SYNTHETIC POLYALPHAOLEFINS

2. CHEMICAL ADDITIVES

ZINC DI PHOSPHATE, CALCIUM SULFONATE, MAGNESIUM,
ANTIOXIDANTS, ETC.,

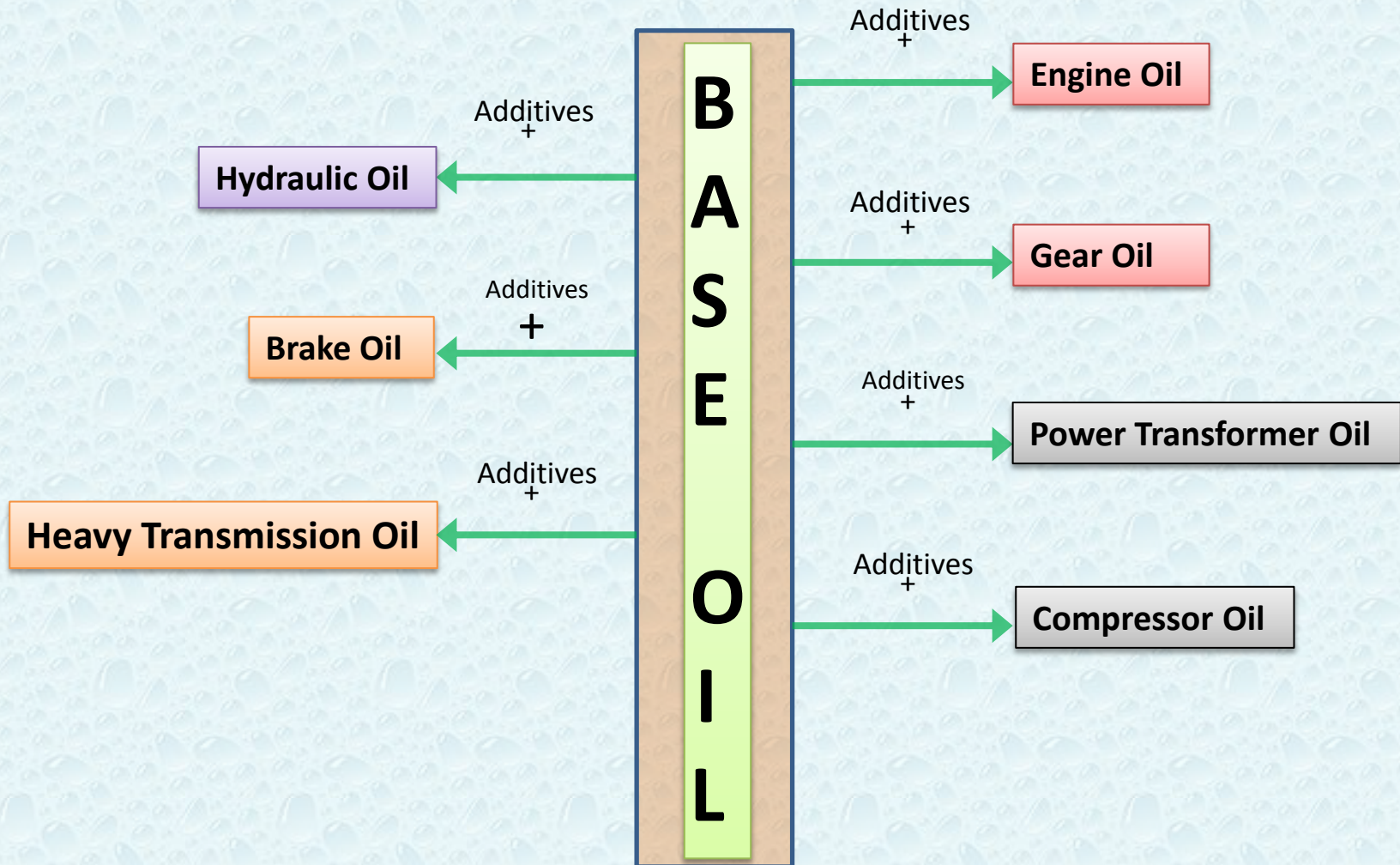
3. POLYMER

OLEFIN COPOLYMERS; POLY METHACRYLATE ETC.,

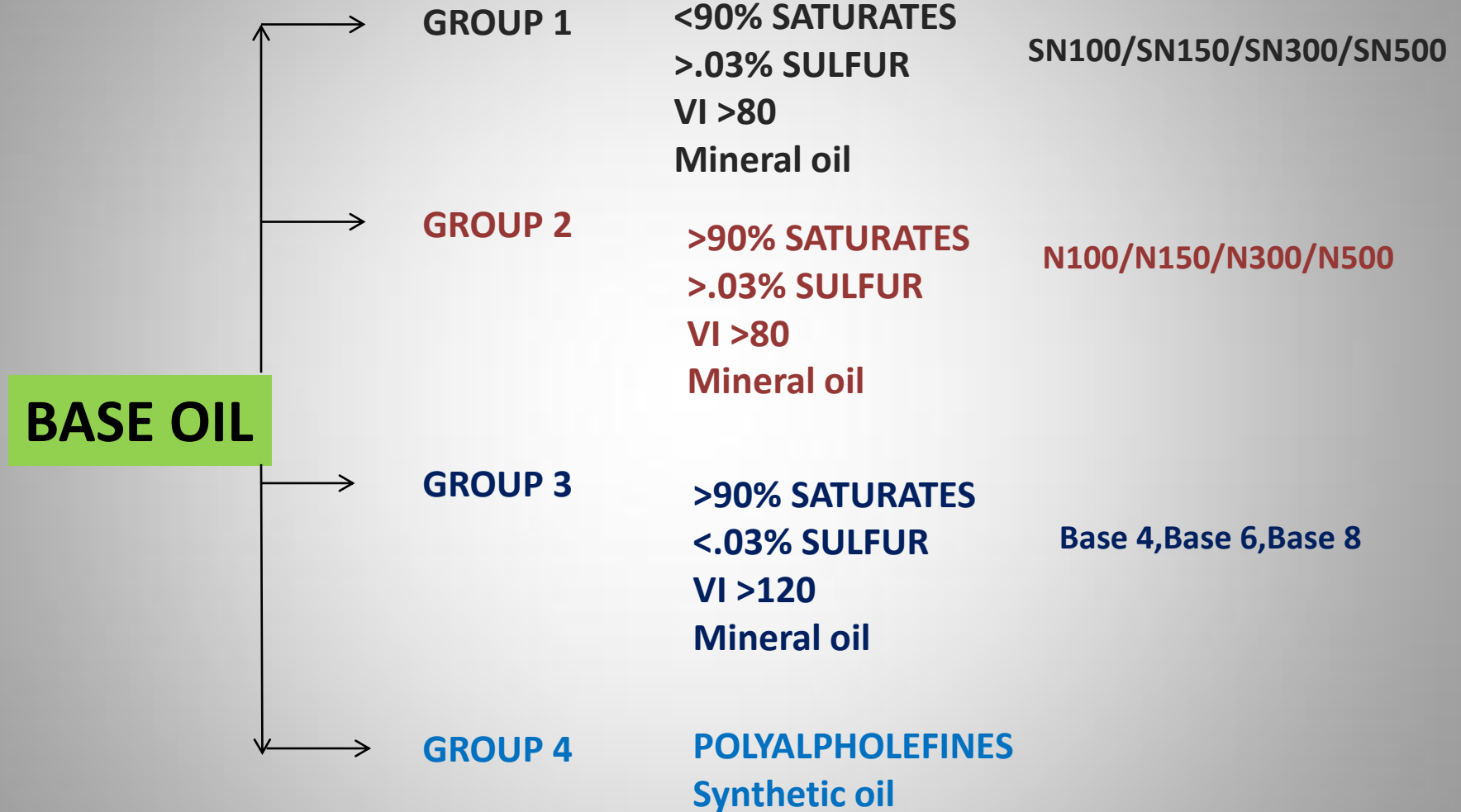


BLENDING

Base Oil ~80% + Additives ~20% = Lubricants



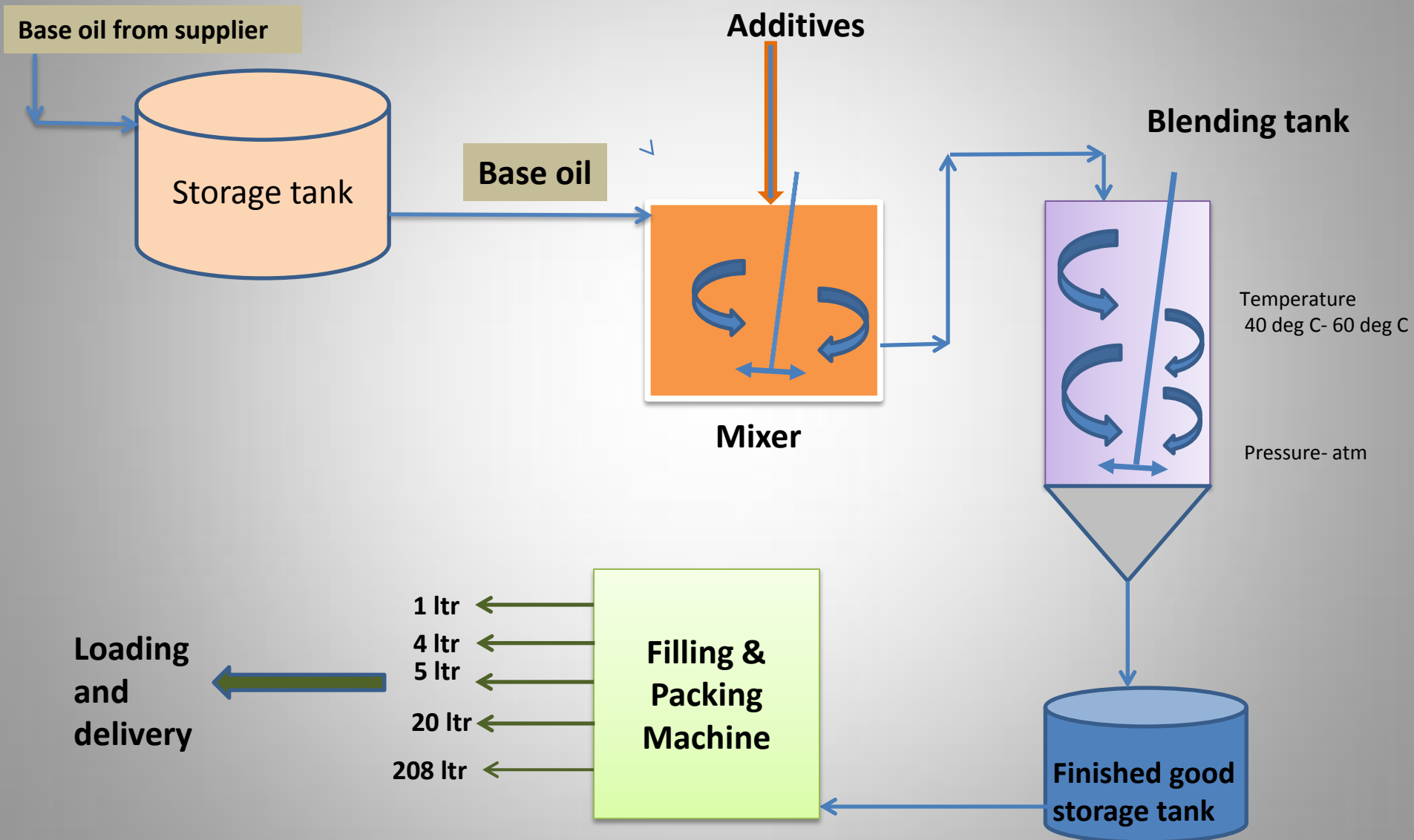
Types of Base oil



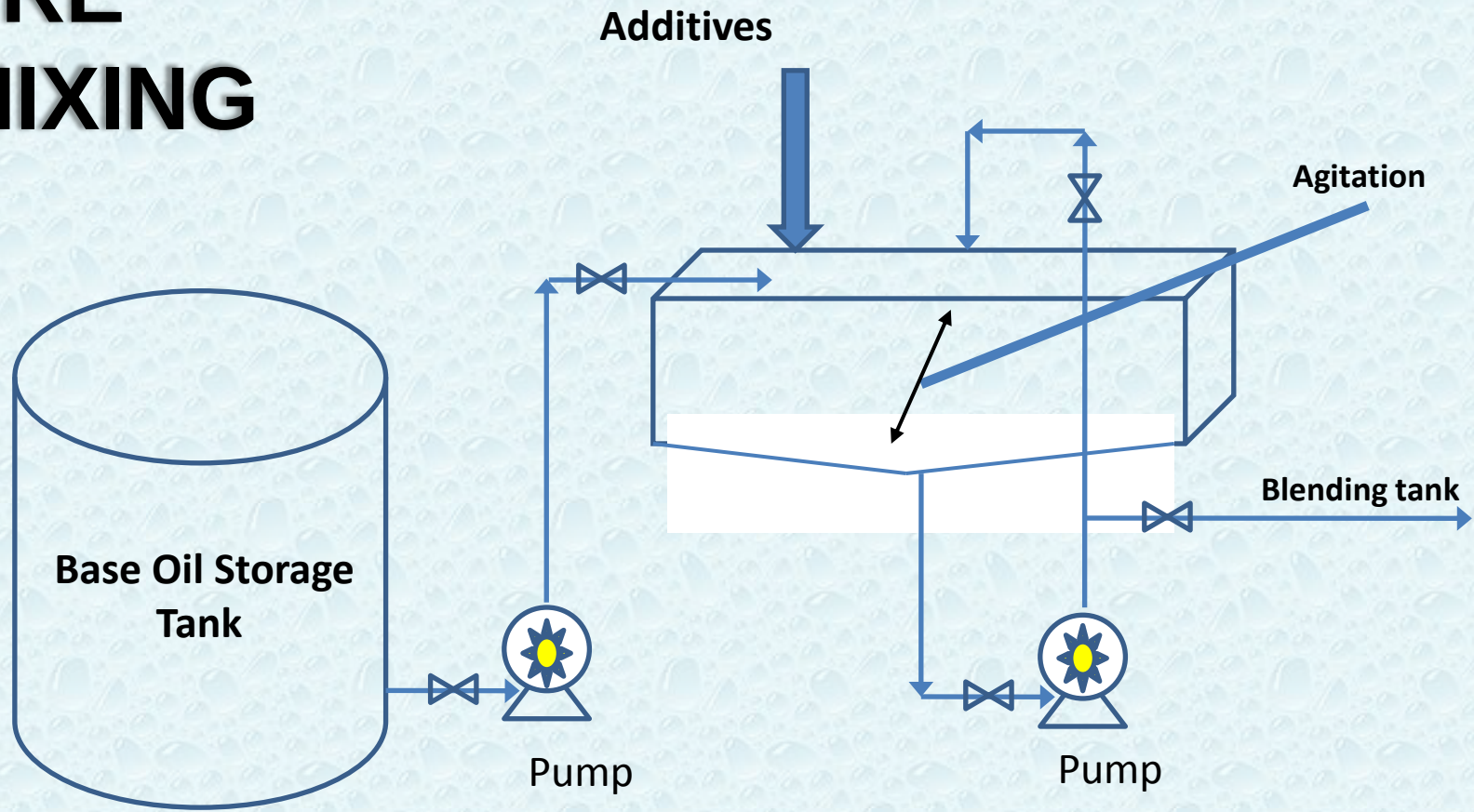
ADDITIVES

- **Viscosity Index Improver(Liquid copolymers)**
- **Diesel Engine oil additive (detergent, dispersant, EP, AW, Antioxidant)**
- **Petrol Engine Oil additive (detergent, dispersant, EP, AW, Antioxidant)**
- **TBN Booster additive**
- **Pour point depressant**
- **Anti foam additive**

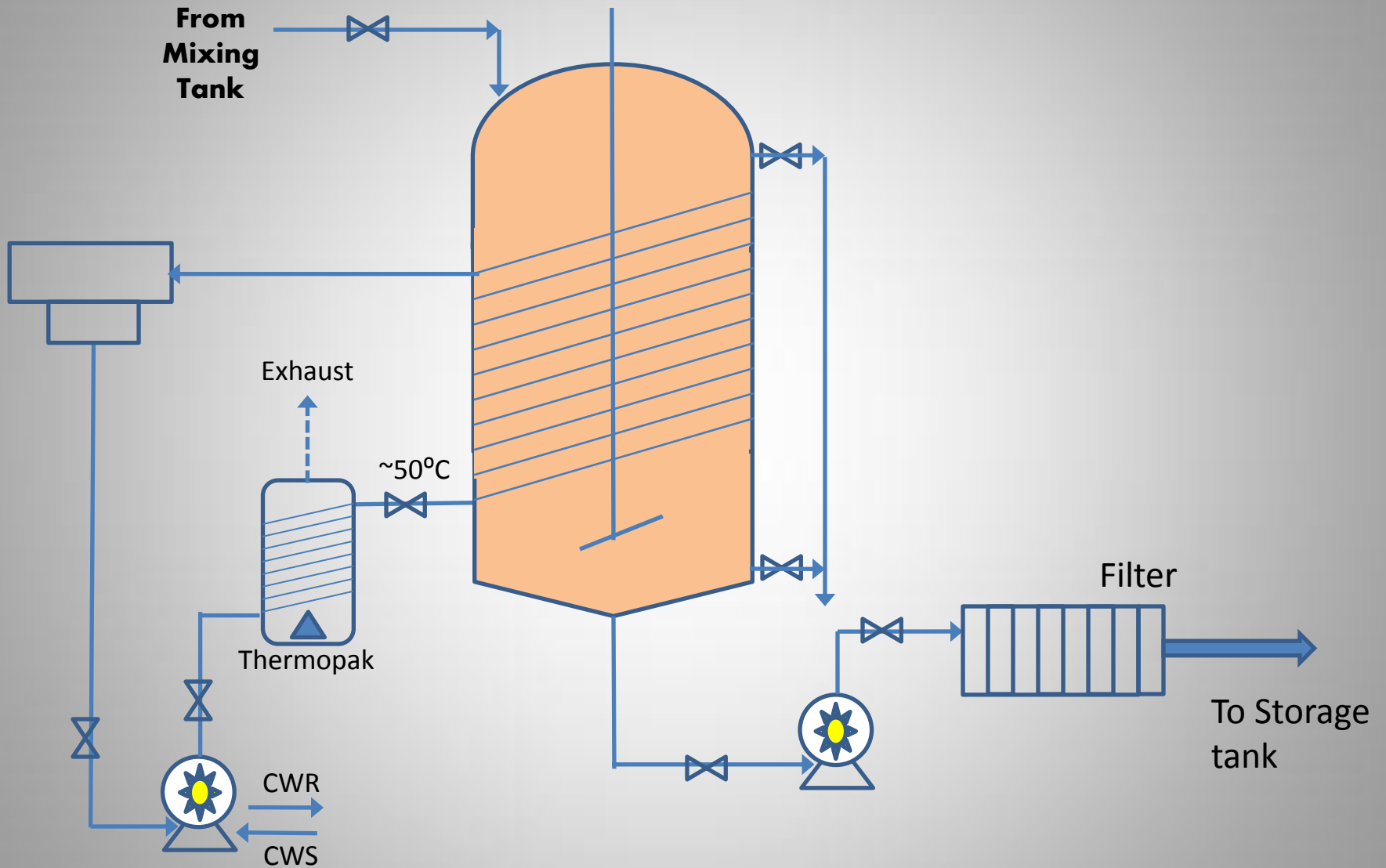
Process Overview



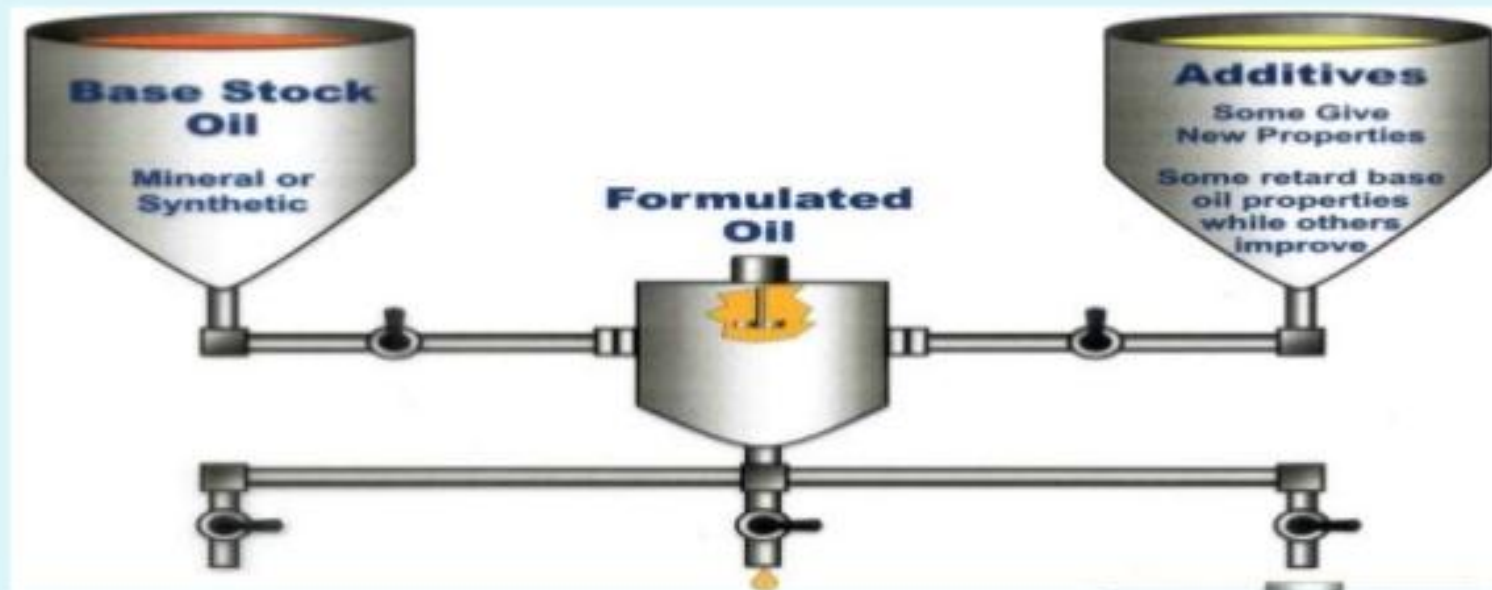
PRE MIXING



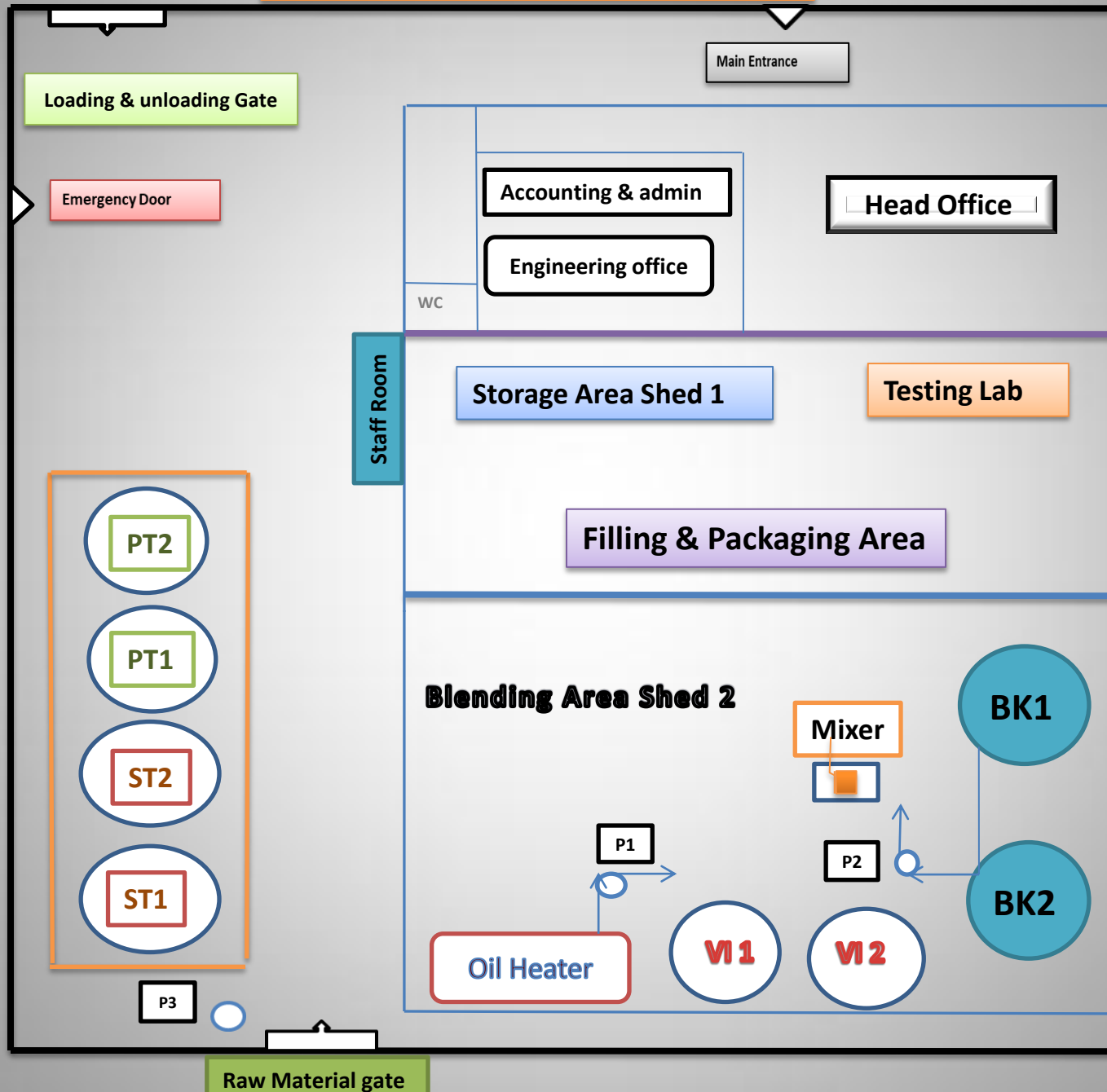
Blending



Lubricants blending with additives



PLANT LAYOUT



Legends :

- *PT-Products tanks
- *ST-Storage tank
- *BK-Blending kettle
- *VI1 hot oil 1
- *VI2 hot Oil 2
- *P1 Booster oil pump
- *P2 Mixing oil pump
- *P3 Unloading oil pump

QUALITY HSE MANAGEMENT& CONTROL

1. Guidance of the HSE MANAGEMENT& CONTROL :

- ❑ The objective to provide guidance in the setting up of an administrative, legal and technical system for the control of major hazard installations.
- ❑ It seeks to protect workers, the public and the environment by:
 - (a) Preventing major accidents from occurring at these installations;
 - (b) Minimizing the consequences of a major accident on site and off site.

2. Control of the Causes of Major Industrial Accidents:

- Works management should control major hazard installations by sound engineering and management practices:
 - (a) Proper plant producing, manufacturing, with high-standard components
 - (b) Regular plant maintenance;
 - (c) Efficient plant operation;
 - (d) Well management of safety on site;
 - (e) Regular inspection, with repair and replacement of components where necessary.
- Works management should consider the possible causes of major accidents, including:

- (a) Component failure
- (b) Deviations from normal operation
- (c) Human and organizational errors
- (d) Accidents from neighboring plant or activities

➤ Works management should arrange for safety equipment and process control.

3. Safe Operation of Industry Hazard :

- 1) The primary responsibility for operating and maintaining the installation safely should lie with works management.
- 2) Good operational instructions and sound procedures should be provided.
- 3) Works management should ensure that workers operating the installation have been adequately trained in their duties.
- 4) Accidents and near misses should be investigated by staff management.

4. Emergency Planning:

- 1) Emergency planning should be regarded by works management and the competent authorities as an essential feature of a major hazard control system.
- 2) The responsibility for on-site emergency planning should lie with works management.
- 3) The responsibility for emergency planning should be by local authorities management.
- 4) The objectives of emergency planning should be:
 - (a) Localize any emergencies that may arise and if possible contain them
 - (b) Minimize the harmful effects of an emergency on people, assets and the environment.

5. Standards and Practices:

- A characteristic of safety legislation to have an overall requirement for safety at work in a form of general occupational health and safety regulations.
- Regulations refer to a subset of regulations directed at particular aspects of hazards.
- Regulations such as require all to ensure the safety of workers, environment and plant.
- Safety practice begins with of risk assessment, requiring company to identify and evaluate risk in the workplace and to record the measures, if any, to minimize the risks.
- Both process and machinery safety methods are part of a growing trend to set common standards for safety practices that will be acceptable.

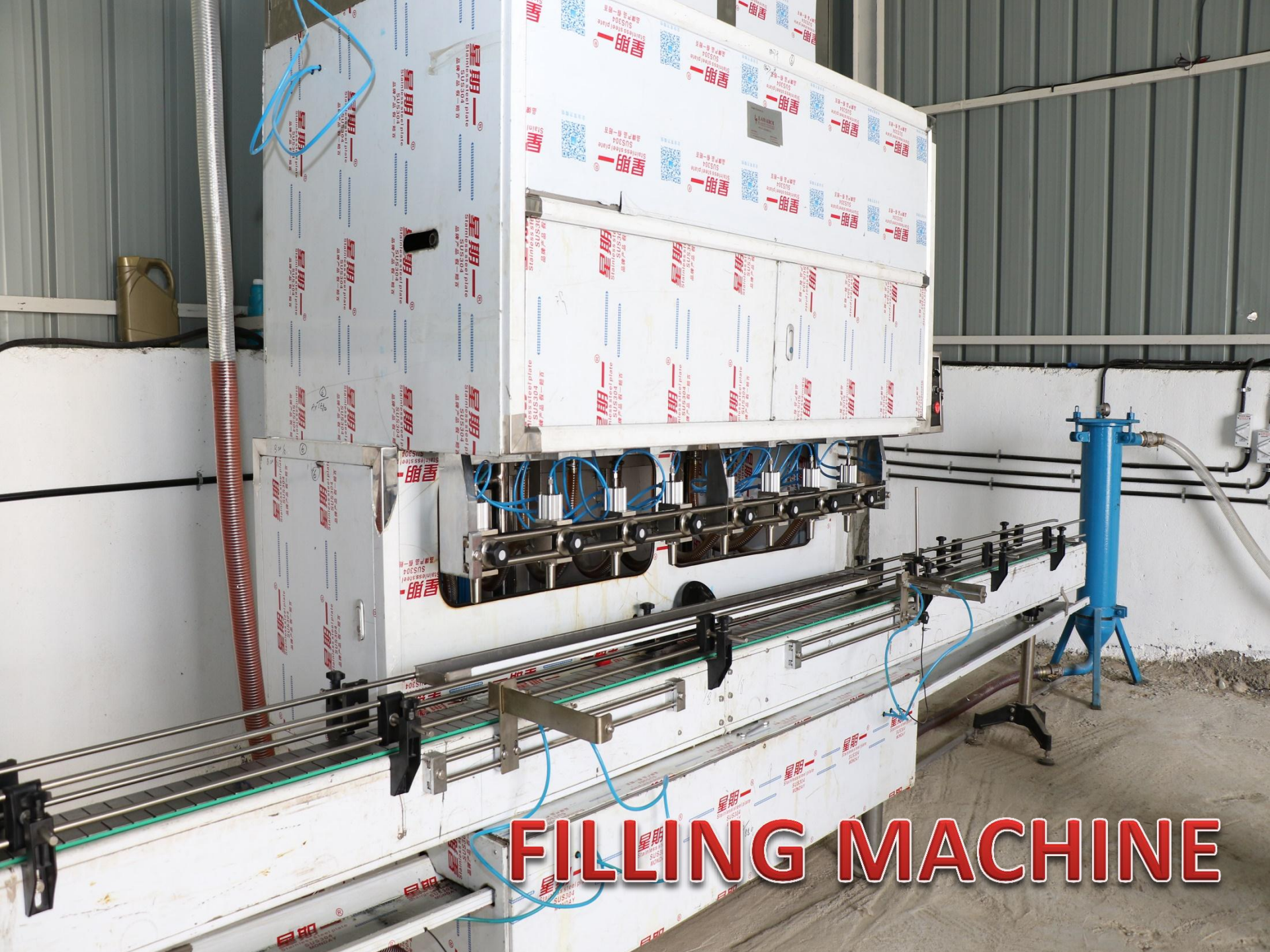
6. SAFETY PRECAUTIONS

- Qualified Personnel.
- Proper materials to be used
- Safety harness to be used.
- Secure tools properly.
- Special protection near equipment & instruments to avoid trips
- Use of proper PPE.
- Powered equipment to be certified and calibrated.
- Good housekeeping.
- Power supply to be inspected



FINISHED GOOD STORAGE TANK





FILLING MACHINE



SAMPLE PRODUCTS

A photograph of a large industrial facility, likely a warehouse or factory, with a high ceiling and corrugated metal walls. The floor is paved with interlocking bricks. Several pieces of industrial machinery are visible. On the left, there is a large, light-colored machine with a glass-enclosed upper section, possibly a filling or mixing unit. In the center, there is a long, low machine with a blue and white top section, possibly a conveyor or sorting system. On the right, there is a tall, silver-colored machine with a complex frame, possibly a packaging or labeling unit. In the foreground on the right, there is a blue and white machine with a control panel, possibly a filling or dispensing unit. A yellow bucket is on the floor near the center machine. A white plastic chair is visible on the far left. The lighting is bright, coming from overhead fixtures.

FILLING & PACKING





GNO HSE Plan

Objective of HSE is to provide a workable model to help the site in striving to achieve the ultimate goal of **(GNO)** - Zero lost time injury accident.

We firmly believe that building and maintaining a safety culture in a day- to- day work life all the employees is a primary task of an organization.

The Management of **(GNO)** will do its best to bring in this culture among the employees:

Lost time injuries - ZERO

Reportable injuries - ZERO

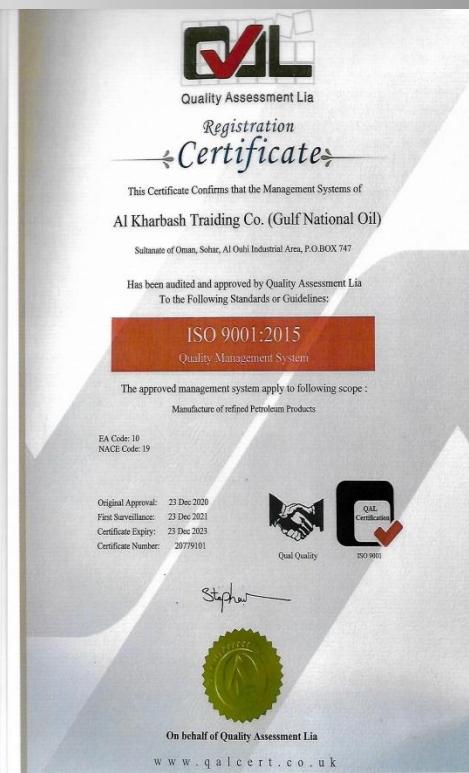
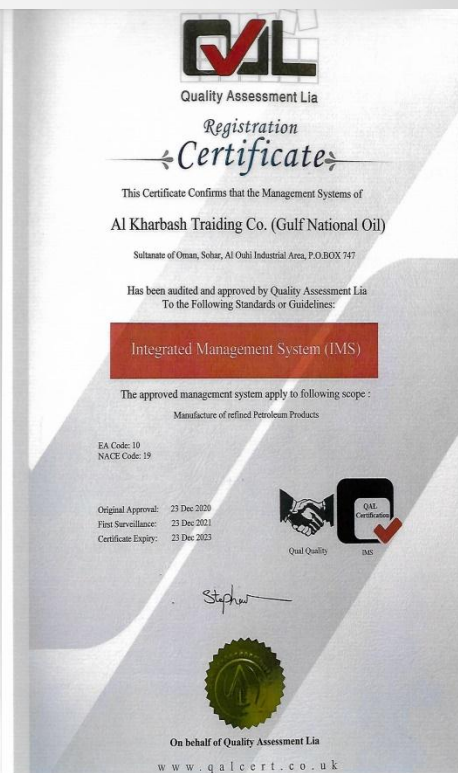
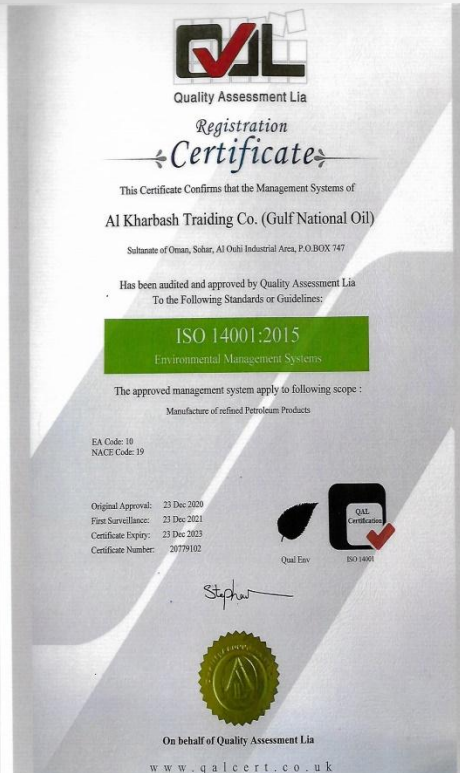
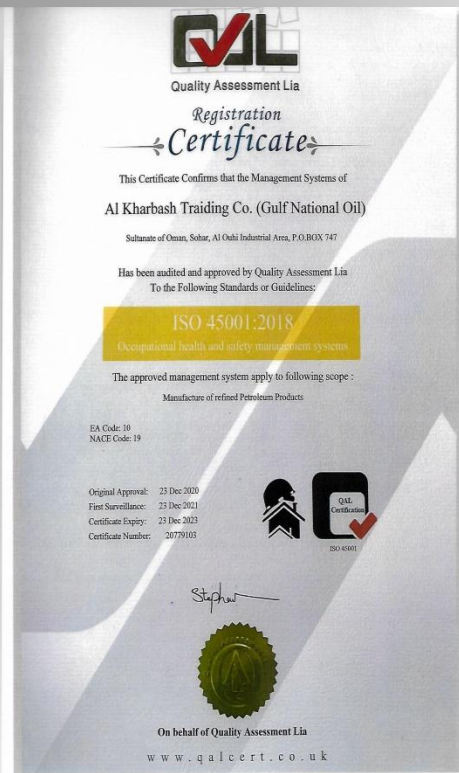
Occupational illness - ZERO

Environmental - ZERO

(GNO) shall implement a risk management process that ensures the systematic identification, assessment, treatment and ongoing monitoring of risk throughout the life of the lubricating oils manufacture.



GNO ISO CERTIFICATES



Company Certificates



Lonestar Alpha Laboratories

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E-mail: info@lonestarlabs.com Website: www.lonestarlabs.com

TEST CERTIFICATE - ANALYSIS OF ENGINE OIL

Report No.	LMCHE - 20-0513/4	Date Reported	12 Aug 2020
Cust Ref.	-	Date Received	30 Apr 2020

1. Information Provided By Customer

Customer	GULF NATIONAL OIL		
	Al Ouhli Sohar Sultanate of Oman		
Project	Not Given		
Sample Description	GNO Turbid - SAE 5W-30 SN		
Sampled By	Customer	Sampling Date & Time	NG
Sample Brought By	Customer	Sampling Method	NG

2. Information Provided By Laboratory

Date Tested	30 Apr 2020 - 12 Aug 2020	Method Variation	NIL
Test Location	MCT	LAL Sample No.	CHE / 1798
Remarks	None		

3. Test Results

TEST	UNIT	TEST METHOD	RESULTS
Chemical Tests			
Flash Point	°C	ASTM D 92-05	228
Kinematic Viscosity @ 100°C	cSt	ASTM D 445-09	10.58
Kinematic Viscosity @ 40°C	cSt	ASTM D 445-09	64.14
**Total Base Number	mg KOH/g	ASTM D 2896	7.4

**Substituted



For and behalf of Lonestar Alpha Laboratories
Muscat
of the test report

Tejaji Parsookar
Laboratory Manager
Chemistry & Microbiology

Sultanate of Oman
Ministry of Commerce and Industry
Directorate General of Commerce
Muscat



سلطنة عمان
وزارة التجارة والصناعة
المديرية العامة للتجارة
وسقط

شهادة
تسجيل علامة تجارية

الرقم (١١٥٨٠٨)

إلى / الخريش للتجارة

الصون : ص ب : ٢١١ ر ب : ٧٤٧، عمان

طبقاً لأحكام المادة (١٥) مقروءة مع المادة (١٦) من قانون نظام العلامات التجارية لدول مجلس التعاون لدول الخليج العربية الصادر بالمرسوم السلطاني رقم ٢٠١٧/٢٢ م :
تشهد المديرية العامة للتجارة (دائرة الملكية الفكرية) بوزارة التجارة والصناعة بأنه قد تم تسجيل العلامة التجارية الموضحة بياناتها أعلاه :
تم تقديم الطلب بتاريخ ٢٠١٨/٠١/٠٢ م ، ونشر عنها في الجريدة الرسمية بالعدد رقم (1251) وباتاريخ ٢٠١٨/٠٧/٠٨ م وفي إحدى الصحف اليومية ، وسجلت بتاريخ ٢٠١٨/٠٩/١٨ م في الفتر (٤) من أجل المنتجات والخدمات التالية :
صناعة زيوت المحركات

وستظل الحماية القانونية سارية المفعول لمدة عشر سنوات اعتباراً من تاريخ تقديم طلب التسجيل ، ويحق لكم تجديد تسجيل العلامة المسجلة خلال السنة الأخيرة من مدة الحماية استناداً لنص المادة (١٩) من قانون العلامات التجارية لدول مجلس التعاون لدول الخليج العربية الصادر بالمرسوم السلطاني رقم ٢٠١٧/٢٢ م .
وقد الصقت صورة من العلامة التجارية المذكورة خلف هذه الشهادة .

تقريباً في ٢٠١٨/٠٩/١٨ م

أحمد بن محمد السعيد
مدير دائرة الملكية الفكرية



THANK YOU

