

GLACEON

Chemicals Private Limited





The Promoters :

Associated with
Chemicals manufacturing
since last
Two Decades

Company Profile

- » Newly registered company under companies Act on 18.05.2020
- » Corporate Identification Number (CIN)-U24297GJ2020PTC113577
- » Promoter with reach experience of 20 years in Chemical Industries, started a registered start up unit
- » Second director who is presently engaged in business of construction of domestic as well as industrial establishment
- » Kamala-Amrut Infrastructure Private Limited - (CIN) U45201GJ2008PTC052553

Glaceon Chemicals Private Limited

Survey No. 203, Near Kamla amrut Ind. Park,
Indrad, Ta Kadi, Dist Mehsana, Gujarat

Types of land: 5200 Sq. meter as industrial use
(Non-agriculture use)

Environment and Sustainability

Greenbelt: Developed a good part of it as green belt

Compliance: Has received various government permissions



Total Area
5186 Sq. Mtr.



Green Belt Area
1703.5 Sq. Mtr



Total Road
1550 Sq. Mtr



Total Built Up Area
1502 Sq. Mtr



Parking area
84 Sq. Mtr



Open Space
144 Sq. Mtr



- » Planning for 100 % Energy Consumption from Renewable Energy
- » 10 % of investment in Research & Development
- » Well Qualified and Highly Experienced Team
- » Advanced Well Equipped Quality Control Laboratory
- » State-of-the-art Research and Development Laboratory
- » Well Equipped Safety, Environment and Fire Protection System
- » Rainwater Harvesting

Directors



Kaushik Kumar B Patel

Chemical Engineering, Diploma Industrial
Safety & MBA Finance

Experience: 20 Years

Environment, Health, Safety,
Technical Services and Compliance



Economic Capacity, Project Cost & Profitability

Suggested Capacity:

Metal carboxylate : 1415 MT

Aroma Chemical : 155 MT

Organic Formulation : 400 MT

Inorganic Chemicals : 200 MT

Project Cost:

₹ 551 lakhs

Economic Capacity, Project Cost & Profitability

Suggested Capacity:

Metal carboxylate : 1415 MT

Aroma Chemical : 155 MT

Organic Formulation : 400 MT

Inorganic Chemicals : 200 MT

**Project Cost:
₹551 lakhs**

Assessment of Project Cost

Land Cost **₹32lakhs**

Machineries Cost **₹297lakhs**

Provision for Contingency **10lakhs**

Total Project Cost **₹551 lakhs**

Building Cost **₹253lakhs**

Pre-operative Expenses Cost **₹39lakhs**

Working Capital Margin **₹100 lakhs**

Miscellaneous Expense Cost **₹9lakhs**

Promoter's Contribution
₹141 Lakhs

Term Loan from
Financing Institutions
₹410 Lakhs

Total Project Cost
₹551 Lakhs

11.10 Financial Statements

Cost of production at 360 MT per annum production (i.e., 0.3 % of overall Indian demand)

(A) Variable Cost (₹In Lakhs)

Raw material and utilities	₹765.00/-
Spares and maintenance	₹24.00/-
Selling expenses	₹20.00/-
Total variable cost (A):	₹809.00/-

(B) Fixed Cost

Salaries and wages:	₹24.00/-
Interest on term loan and Working capital loan:	₹45.00/-
Depreciation	₹60.00/-
Administrative expenses	₹3.50/-
Total fixed cost (B)	₹132.00/-

(C) Total Cost of Production C (A+B) (In Lacs)

₹941.00/-

(D) Selling Price per kg.(In Rupees)

₹300.00/-

E) Annual Sales Turnover (In Lacs)

₹1080.00/-

F)Net Profit Before Tax (E-C) (In Lacs)

₹139.00/-

(G) Breakeven Point in %

₹39.00/-



Global Scenario

Global Manufacturer

The Prominent Players operating in the Global Metal Carboxylates Market are

- » **BASF**
- » **Prestone**
- » **Shell**
- » **Exxon Mobil**
- » **Castrol**
- » **Total**
- » **CCI**
- » **Valvoline**
- » **Sinopec**
- » **CNPC**
- » **Lanzhou BlueStar**
- » **Zhongkun Petrochemical**
- » **KMCO**
- » **Chevron**
- » **China-TEEC**
- » **Organometalsa (Greece)**
- » **DIC Corporation (Japan)**
- » **Borchers Inc (US)**
- » **Nichia Corporation (Japan)**
- » **Comar Chemicals (South Africa)**
- » **Ege Kimya (Turkey)**
- » **Chemelyne Specialities (India)**
- » **Umicore N.V. (Belgium)**
- » **Matsuosangyo CO. LTD. (Japan)**
- » **The Shepherd Chemical Company (US)**



Product Application

01 Applications

- » Automobile Coolant
- » Fuel Additives
- » Lubricant Additives
- » Driers in paints
- » Catalysts in Petrochemicals and Refinery Plant
- » Plastic Stabilizers
- » Polyester Accelerators
- » Others

Product Application:

02 Applications



Automobile Coolant

Being used as coolant in vehicle which keeps vehicle engines cool as well as contribute in fuel efficiency.



Fuel Additives

Being used as additive in fuel of vehicle which improves fuel efficiency and improves combustion process which in turns contribute in fuel efficiency.



Lubricant Additives

Being used as additive in various lubricants of vehicle and industrial use which improves life cycle of machines which ultimately reduces carbon foot print of machine maintenance and manufacturing.



Plastic Stabilizers

To prevent degradation when exposed to heat, cold & UV-light, plastics require stabilization

Product Application:

02 Applications



Driers in Paints

Drier is one of the major components of an alkyd-based paint. The main function of a paint drier is to accelerate the drying of resin (mainly alkyd) in the paint. Speciality low VOC Drier blends are in demand in view of climate change and health



Metal Chlorides

Ferric / Zinc Chloride is used in Pharmaceutical industries as raw material to manufacture iron supplement medicines. Iron deficiency is national health issues.



Catalyst in Petrochemicals and Refineries Plant

Petroleum refining and Petrochemical processes, which are the source of by far the largest share of industrial products, consists almost entirely of catalytic processes.



Polyester Resin Accelerator

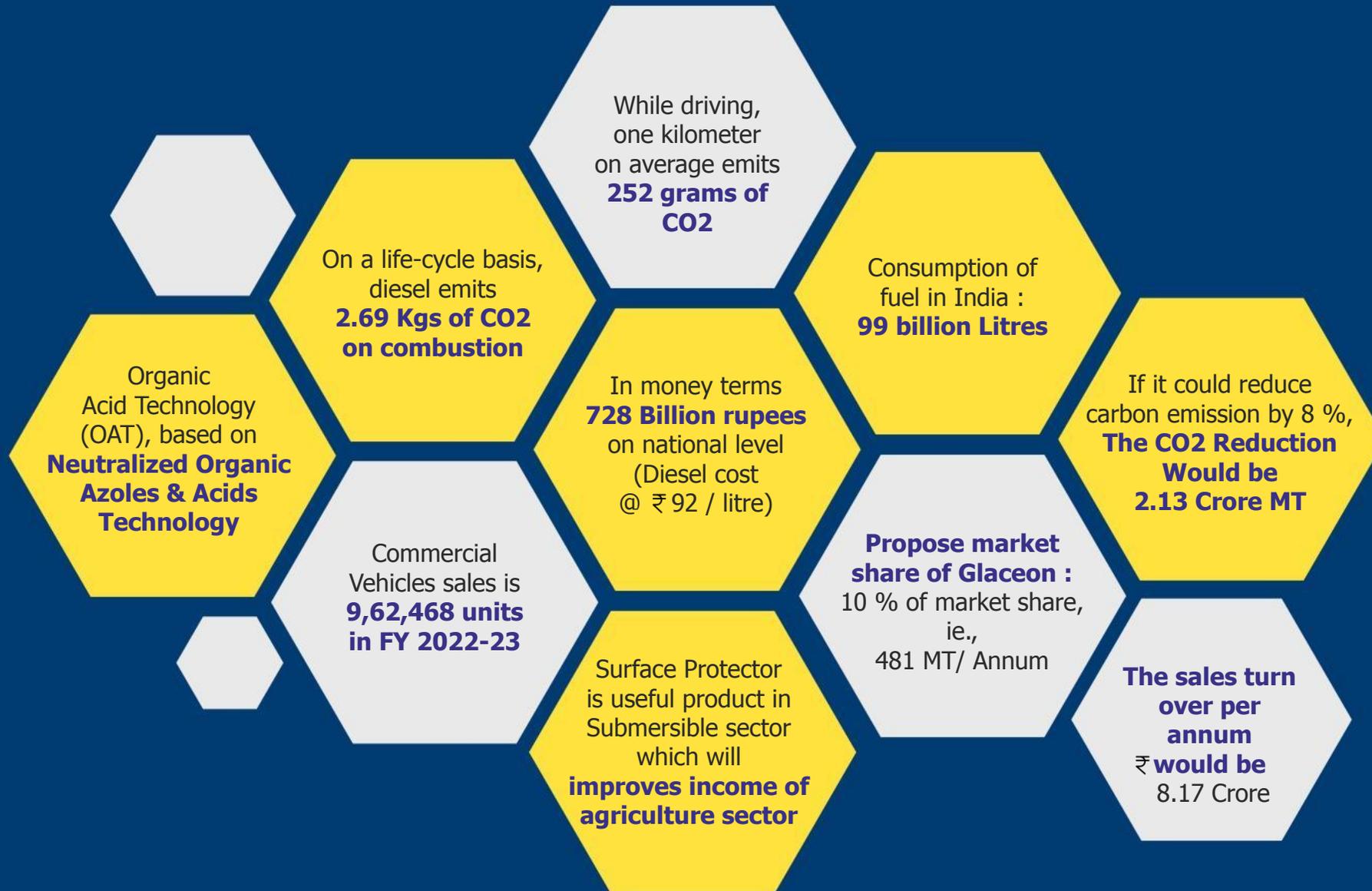
Cobalt, Potassium, Sodium, copper etc are used to accelerate the curing of unsaturated polyester resins and may be used on its own or in combination with other metals like Potassium, Sodium and Copper to obtain optimal results.



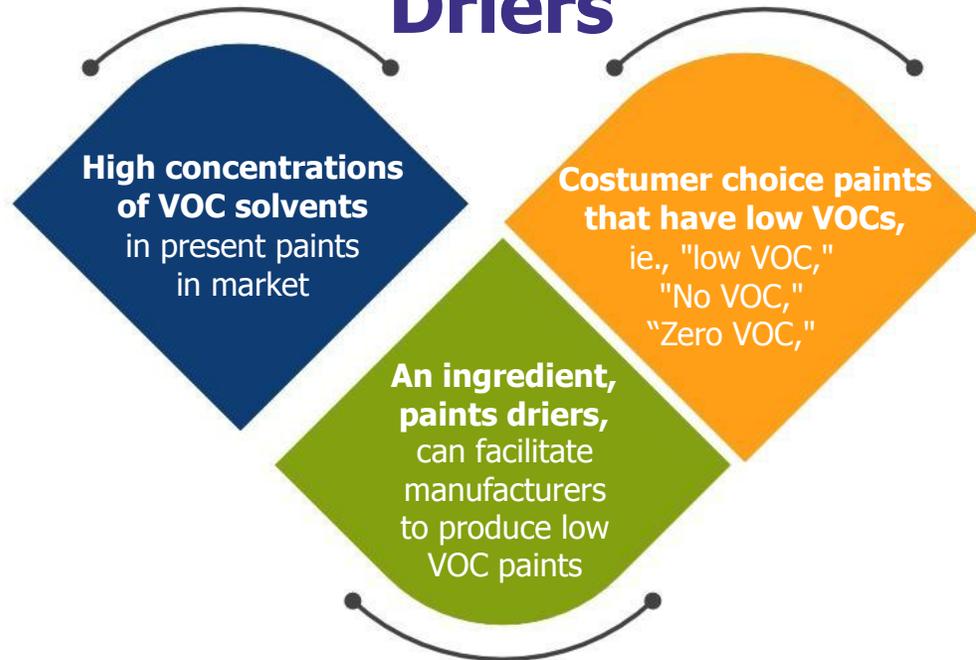
Problem Statement

- ✓ Presently well established brands are in market.
- ✓ Many players in market
- ✓ Competition with global giant manufacturers like Comar, Broche, BASF etc
- ✓ The raw materials are hazardous chemicals, requiring care in handling.
- ✓ Existing capacity of production may fall short of supply against demand.
- ✓ Many Compliance aspects with products and its manufacturing
- ✓ Needs heavy investment on research and development to compete
- ✓ Needs highly skilled manpower

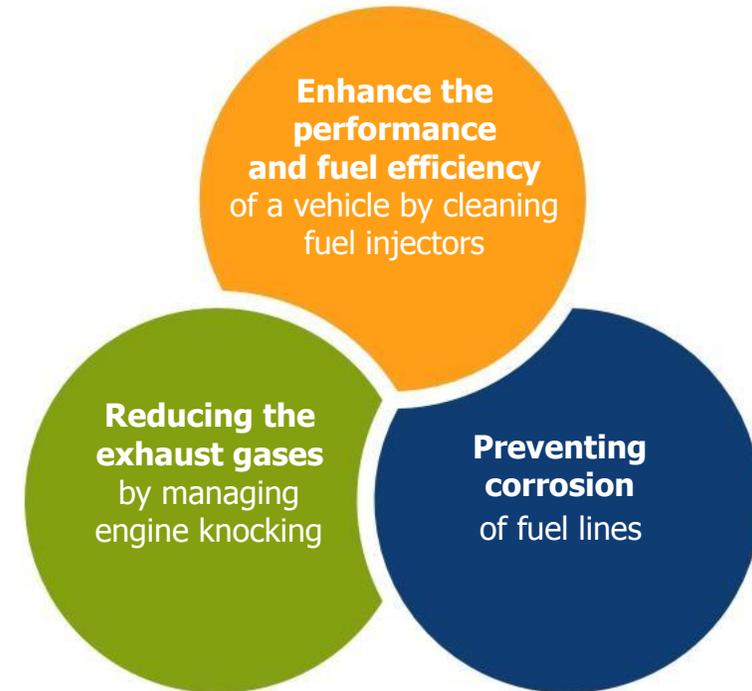
Automobile Coolant



Paint Driers



Fuel Additives



Lubricant Additives

To improve the properties of the base stock under different operating conditions

The high performance requirements of any machinery

Lubricant additives are chemical components that function as a single fluid

Import/Export Trend Product Prospects



- » The global automotive Coolant market is expected to record a **CAGR of 4 % from 2023 to 2033**

As per the latest market research conducted by FMI,

- » In 2023, market size is projected to reach **US \$ 894.82 million**

- » By 2033, it is anticipated to reach **US \$ 1324.55 million**

- » **Factors driving growth**

- Increasing demand for vehicles
- Growing awareness about the importance of engine maintenance
- Technological advancement in coolant products
- Increasing focus on eco-friendly products

Paints Driers / Metal Carboxylates



- » Paints driers has very attractive export potential for **South East Asian Countries and some of European Countries**
- » In 2021, India exported \$20.3M in Prepared Paint Driers, making it the **3rd largest exporter of Prepared Paint Driers in the world**
- » Prepared Paint Driers was the **730th most exported product in India**
- » The main destination of Prepared Paint Driers exports from India are **Indonesia (\$2.89M), Germany (\$2.32M), Russia (\$2.08M), Bangladesh (\$1.36M), United Arab Emirates (\$1.29M)**



Solution

- » Chemical industries have always been at the forefront of innovation,
- » Driving progress across various sectors.
- » Face numerous challenges that demand ingenious solutions to ensure sustainable growth and safe operations.

Sustainability and Environmental Responsibility:.

- » More environment friendly products
- » Development of new products while keeping environment conservation in focus
- » Emphasize on sustainability and environmental responsibility
- » Energy-efficient processes, waste reduction, and ecofriendly manufacturing practices
- » The integration of renewable energy sources
- » Adoption of circular economy principles

Innovation and Research & Development (R&D):

- » With globalization and increasing competition, chemical industries must continuously invest in innovation in new products and processes to stay ahead.
- » Collaborative research initiatives,
- » partnerships with academic institutions and government-funded innovation programs
- » Adopting open innovation models and embracing emerging technologies



Conclusion :

- » The challenges faced by chemical industries are indeed formidable,
- » Innovation and clever strategies will facilitate to overcome
- » Chemical companies can forge a brighter and more successful future by :
 - By leveraging technology,
 - embracing sustainability,
 - enhancing operational safety,
 - optimizing supply chains, and
 - fostering a culture of innovation,
- » Ultimately, collective effort to ensure sustainable growth and a safer world for all

Glaceon Progress Report (Sept 2023 to Jan 2024)

☐ Performance monitoring :

- ☐ Hired SICART on board to carry out monitoring of emission of various vehicles .
- ☐ SICART (Sophisticated Instrumentation Centre for Applied Research and Testing) , Anand, Gujarat :
 - Sponsored by **Department of Science and Technology (DST)**, Government of India and Gujarat State Government.
 - Recognized as a Research Centre by the Department of Scientific and Industrial Research, DSIR, New Delhi.
 - Recognized as Environment Auditor (Schedule -I) by the Gujarat State Government through Gujarat Pollution Control Board(GPCB).

◆ Key observations :

○ Various vehicle emission : OEM filled coolant Vs Glaceon Coolant

- ✓ Carbon monoxide emission reduced by 40 to 100 %
- ✓ Nitrogen Oxide emission reduced by 10 to 40 %
- ✓ Poison index is reduced by 50 to 100 %

(* Comparative results of various monitoring are reproduced in subsequent slides)

Way forward :

Automobile Coolant :

- Patent prior art review is completed
- Patent write up is under preparation
- Provisional patent will be filed by quarter ending June 2024
- **Surface protector for Submersible motor :**
 - Has reported a high performance corrosion inhibitor / protector

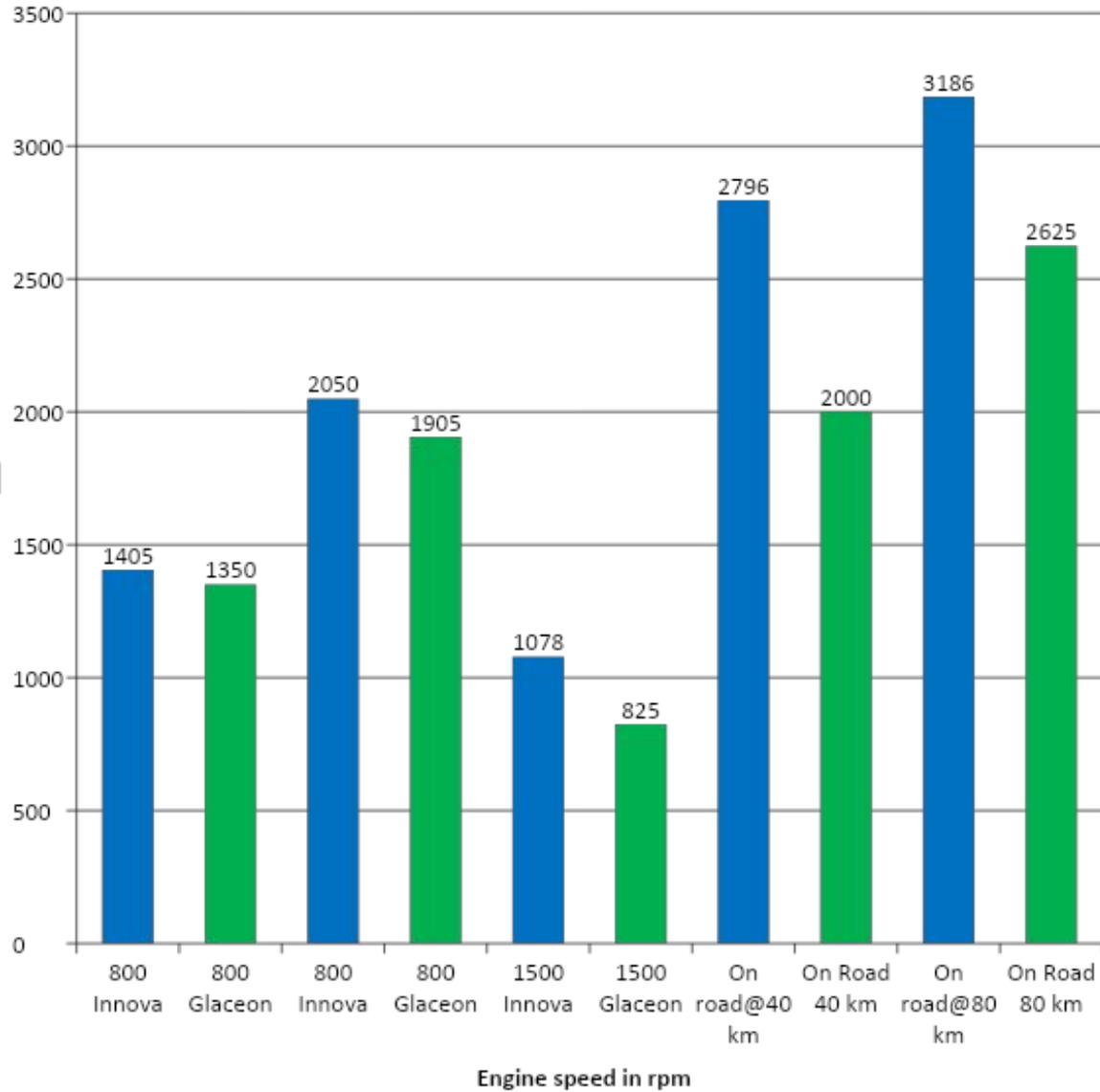
☐ Environment friendly **Green chemistry** development :

- A direct metal to acid reaction route is primarily explored and is under further validation
 - This will reduce water pollution and Hazardous waste

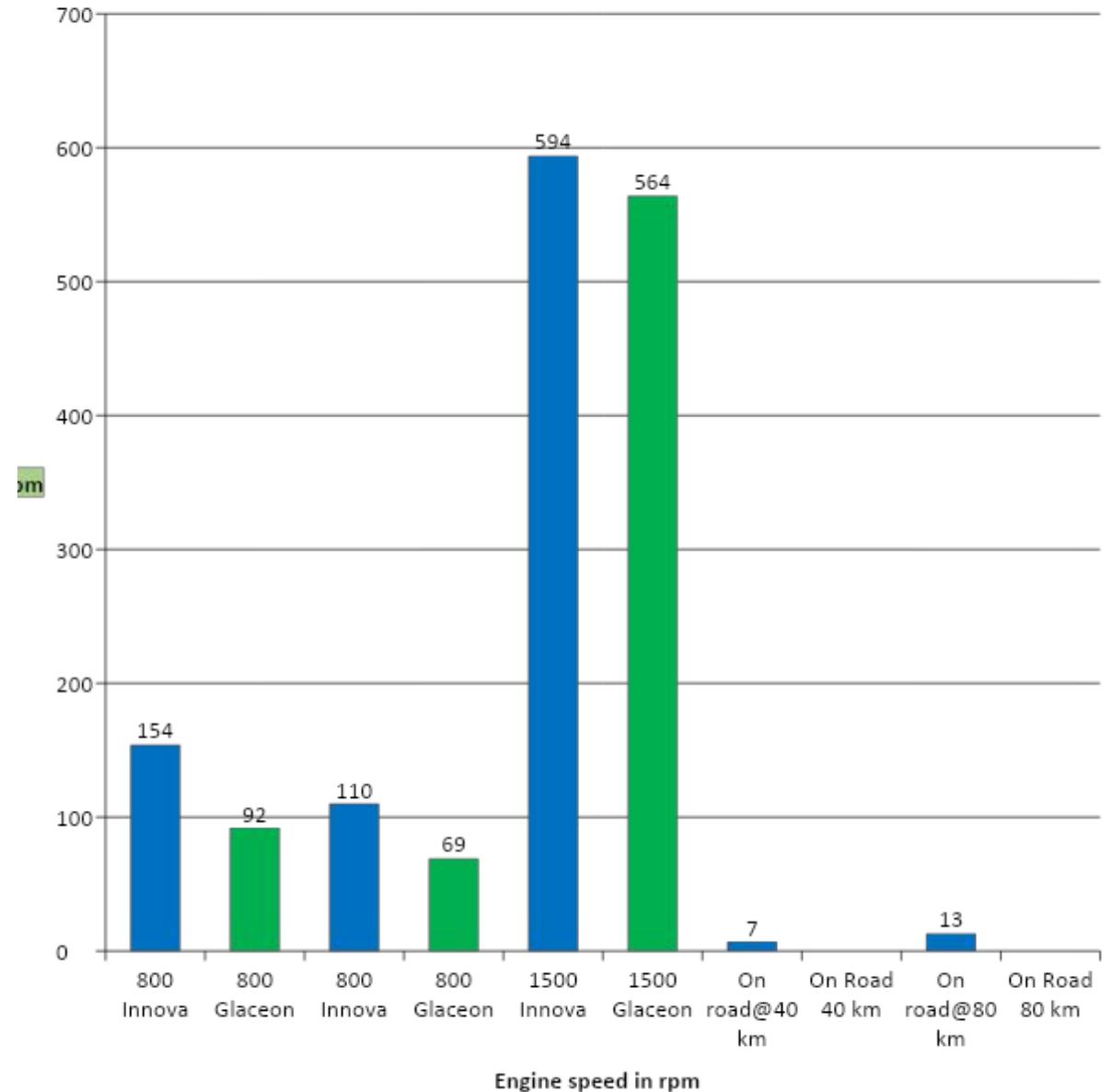
Emission monitoring : Innova Toyota : Existing coolant Vs Glaceon Coolant on

23.11.2023

NO emission

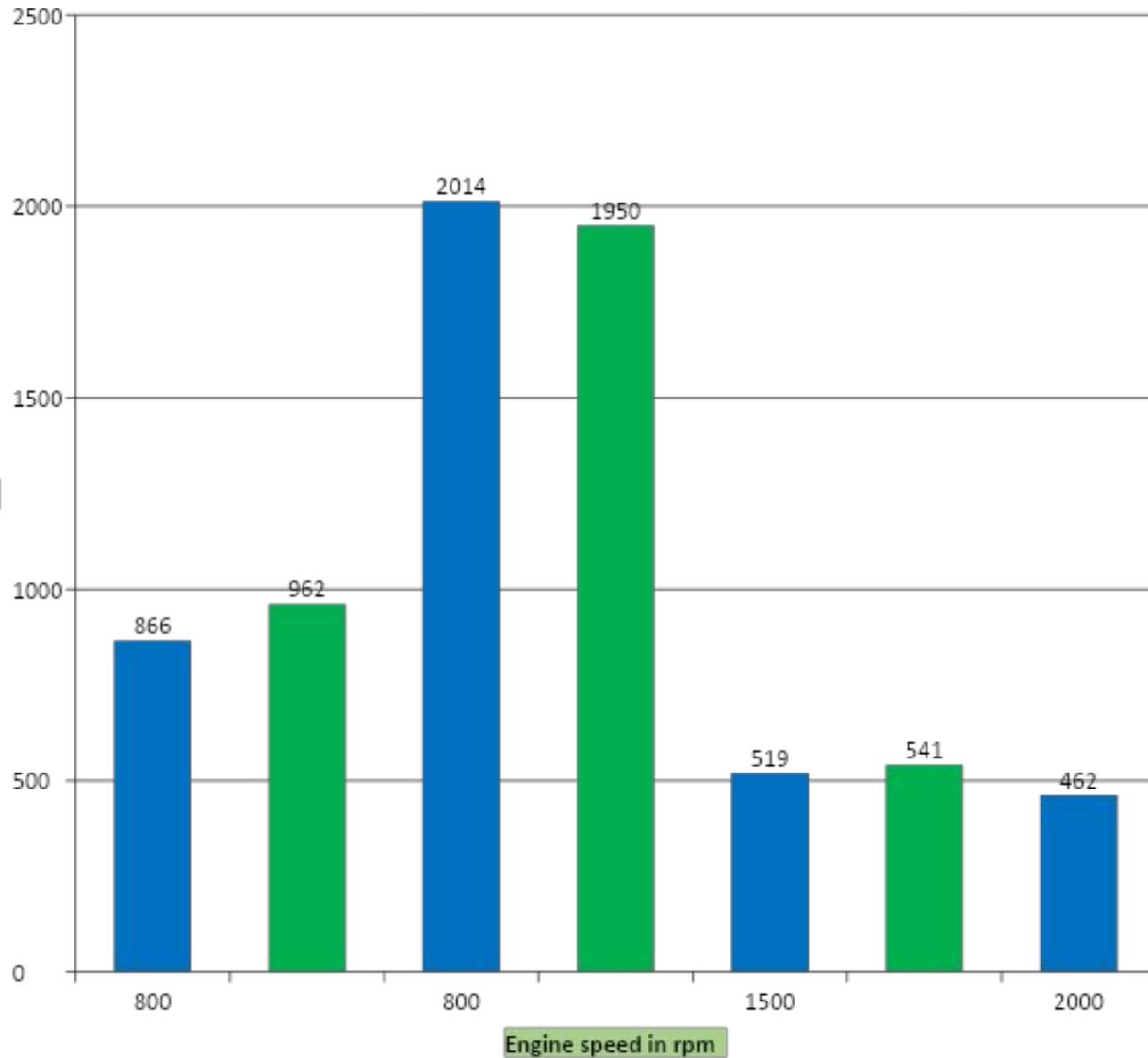


CO emission

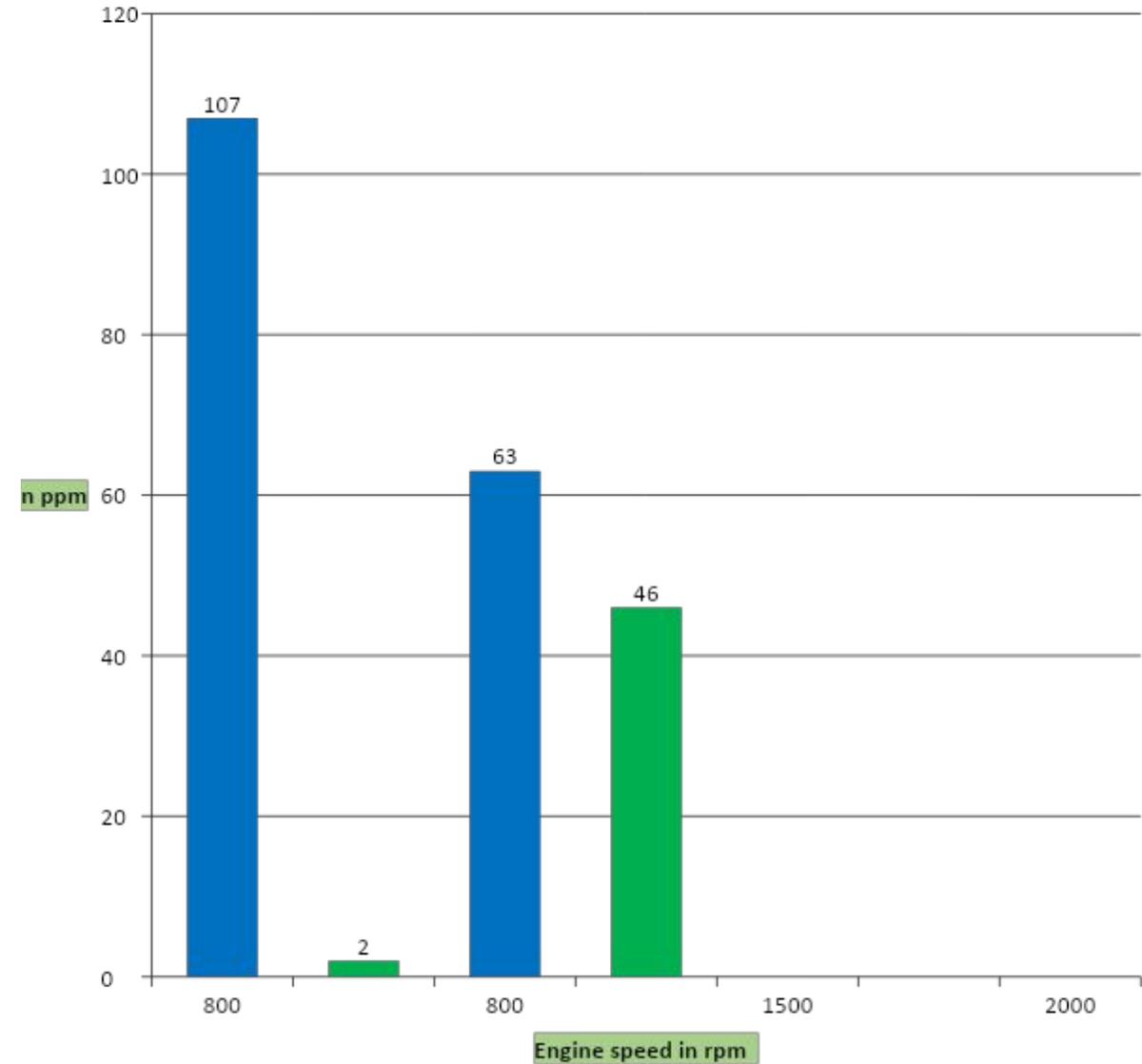


Emission monitoring : Honda Amaze : Existing coolant Vs Glaceon Coolant on 07/11/2023

NO emission



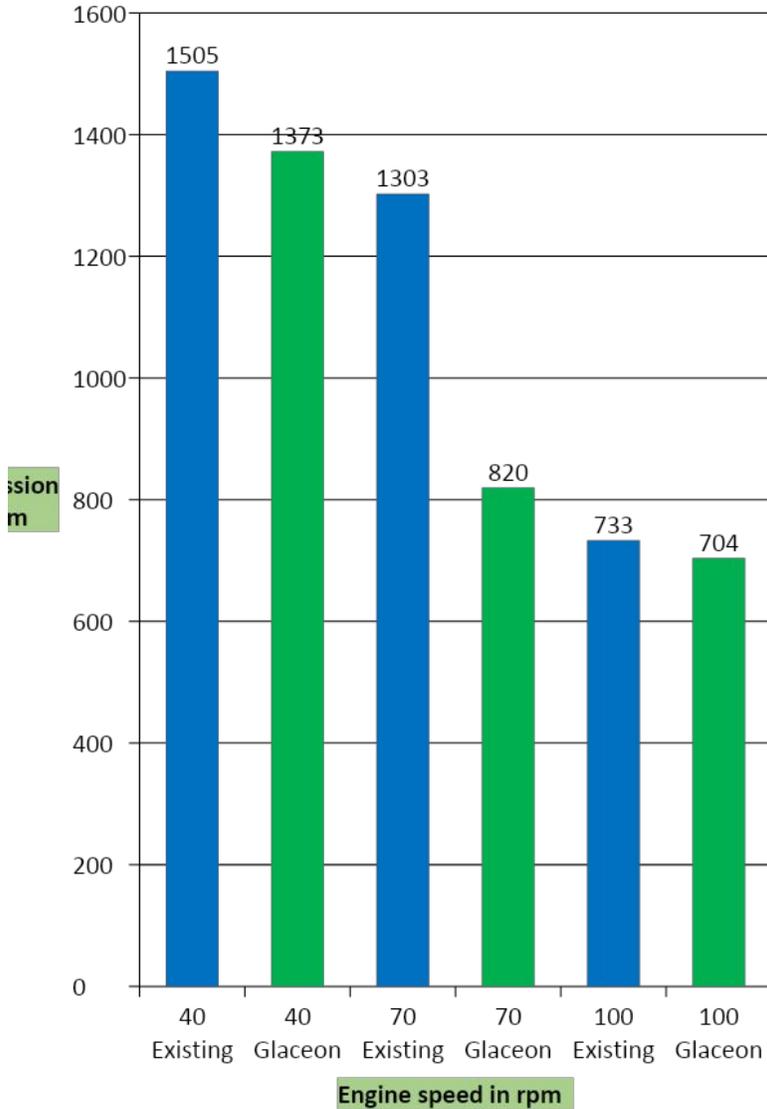
CO emission



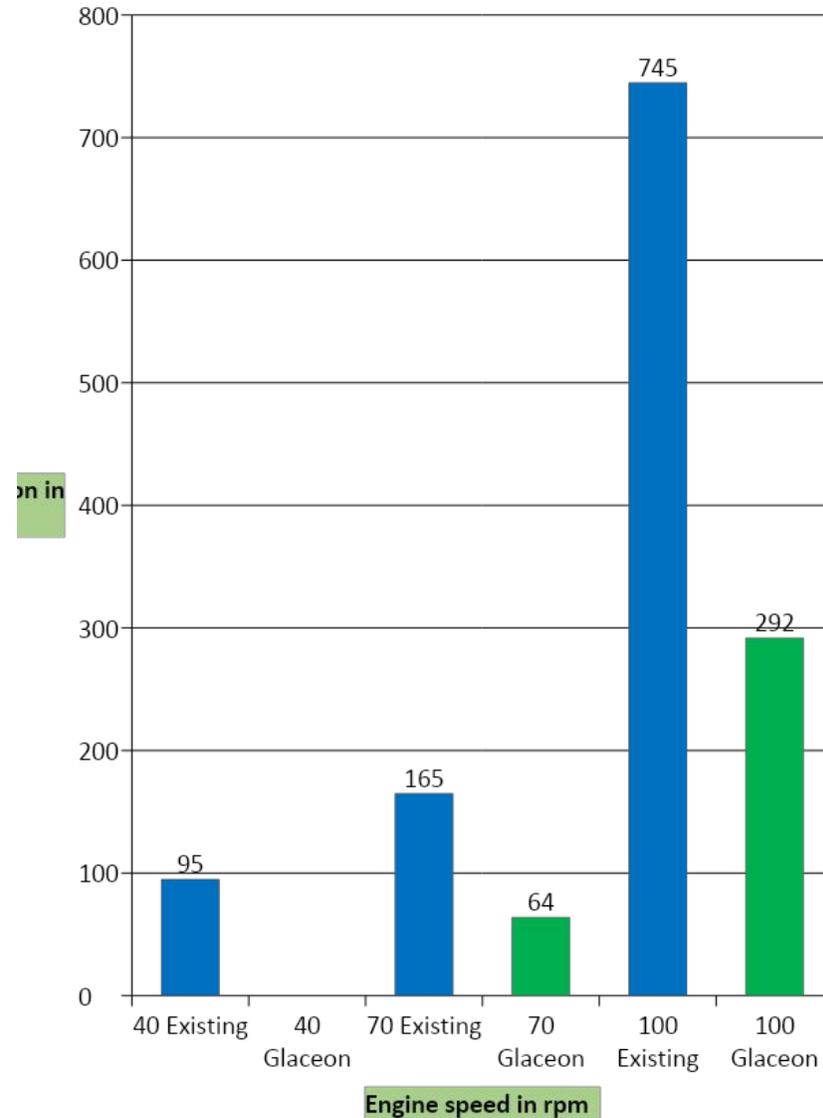
Emission monitoring : AL Luxury bus : Existing coolant Vs Glaceon Coolant on

21/12/2023

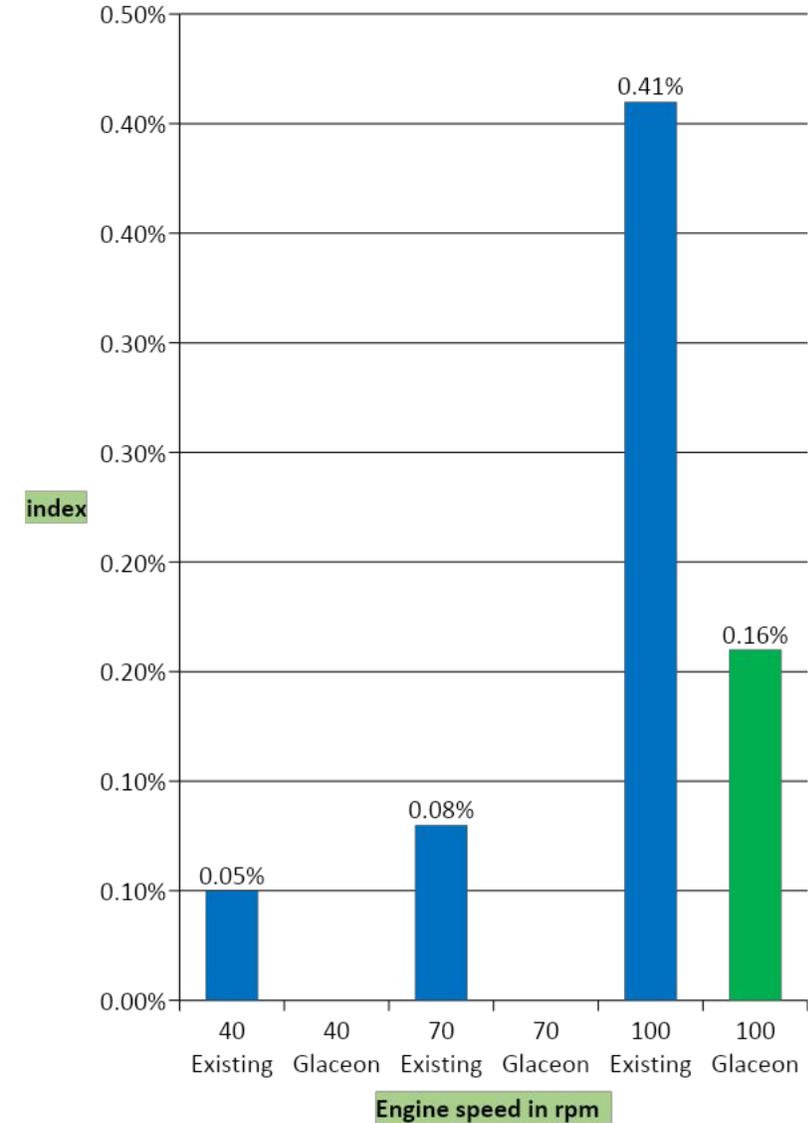
NO emission



CO emission



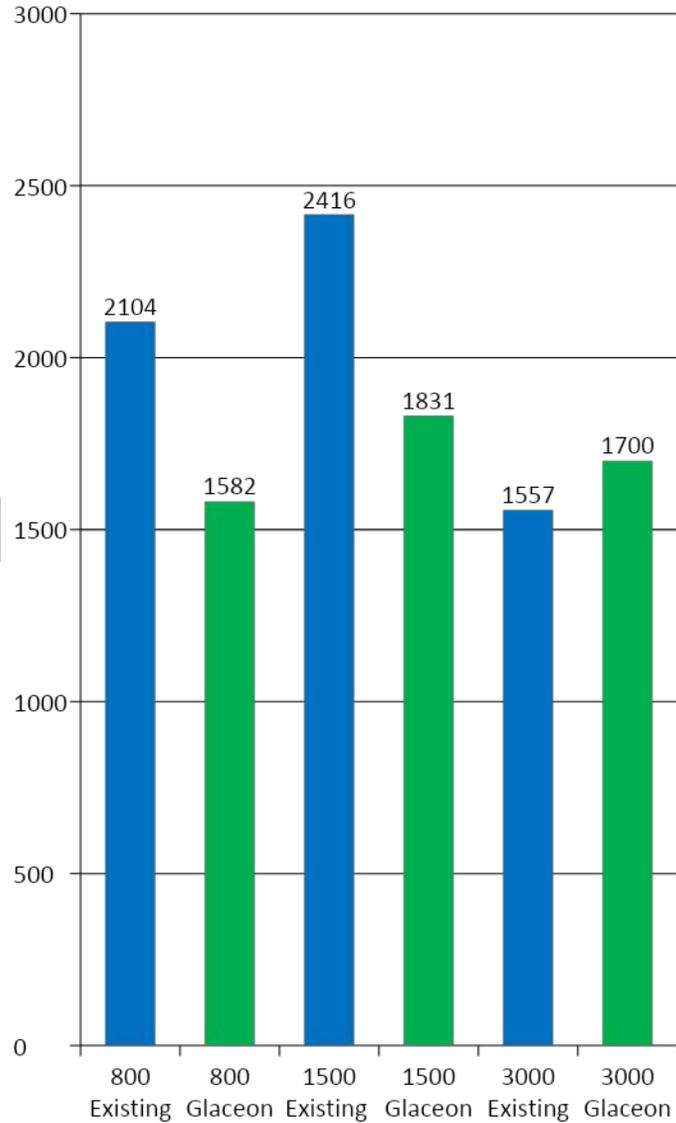
Poison index



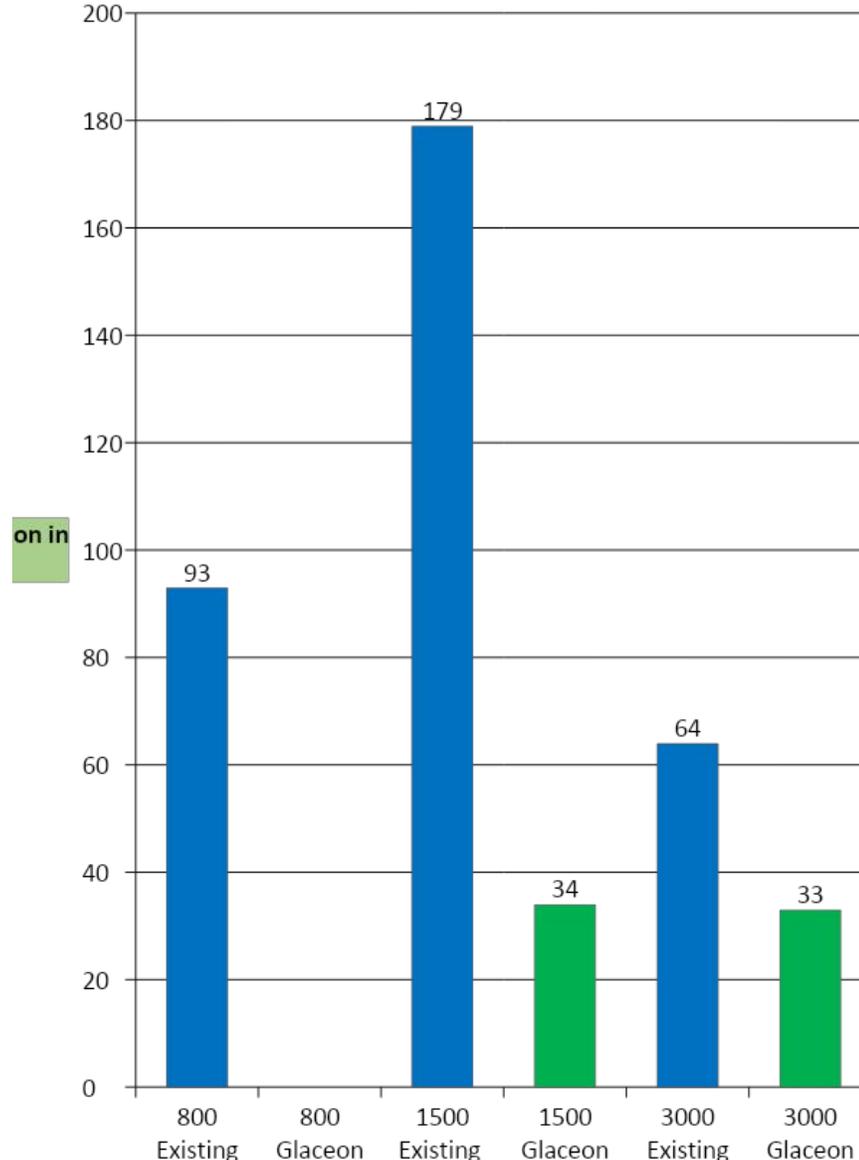
Emission monitoring : Dumper Heavy truck : Existing coolant Vs Glaceon Coolant on

21/12/2023

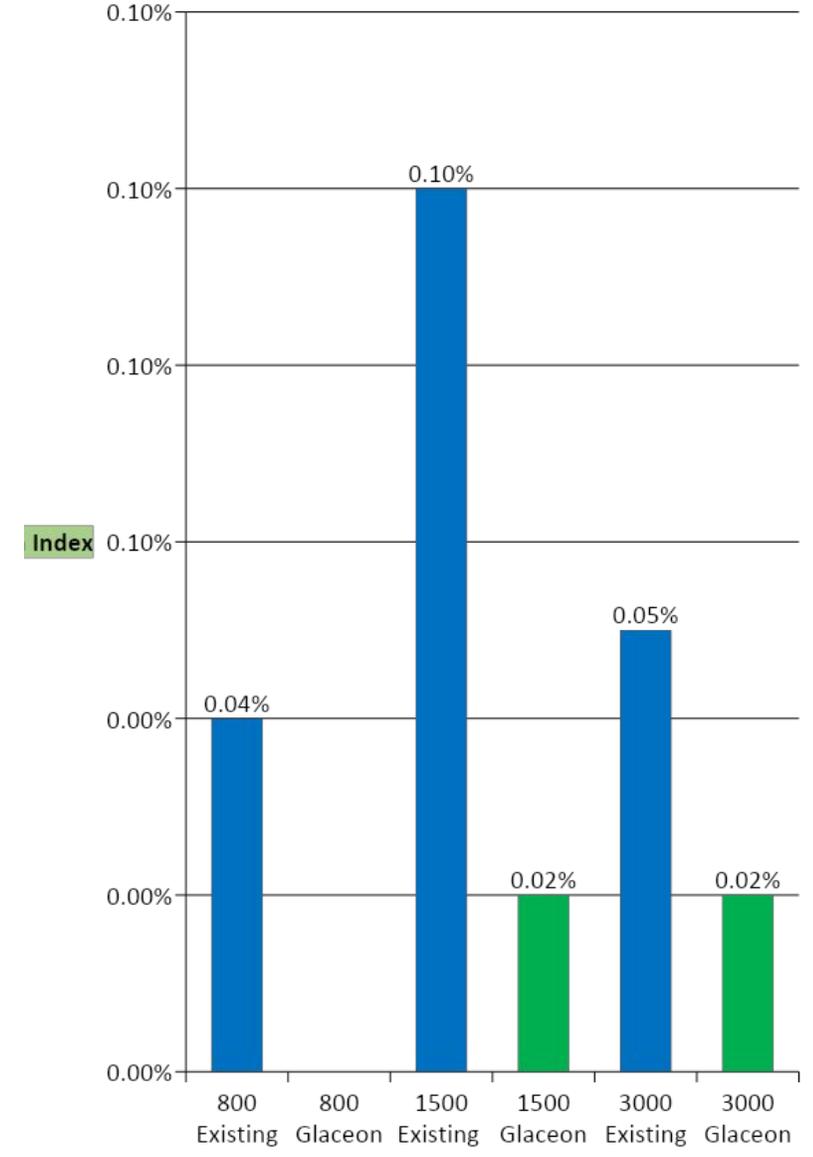
NO emission



CO emission



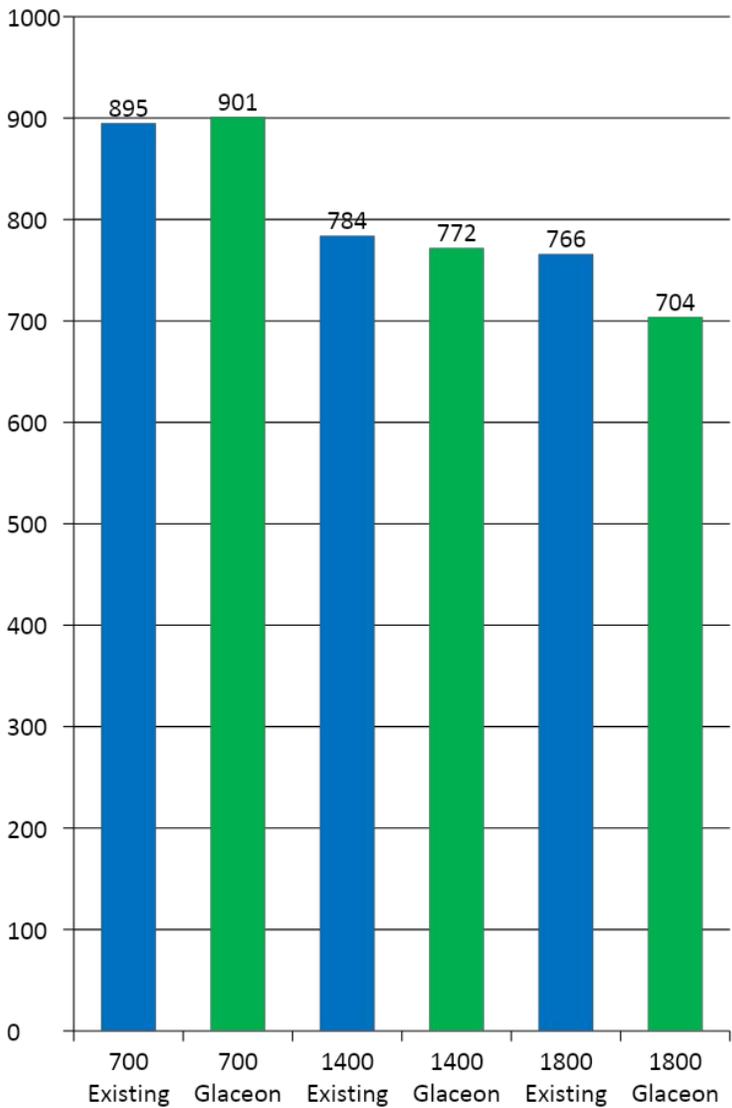
Poison index



Emission monitoring : JCB Earth mover: Existing coolant Vs Glaceon Coolant on

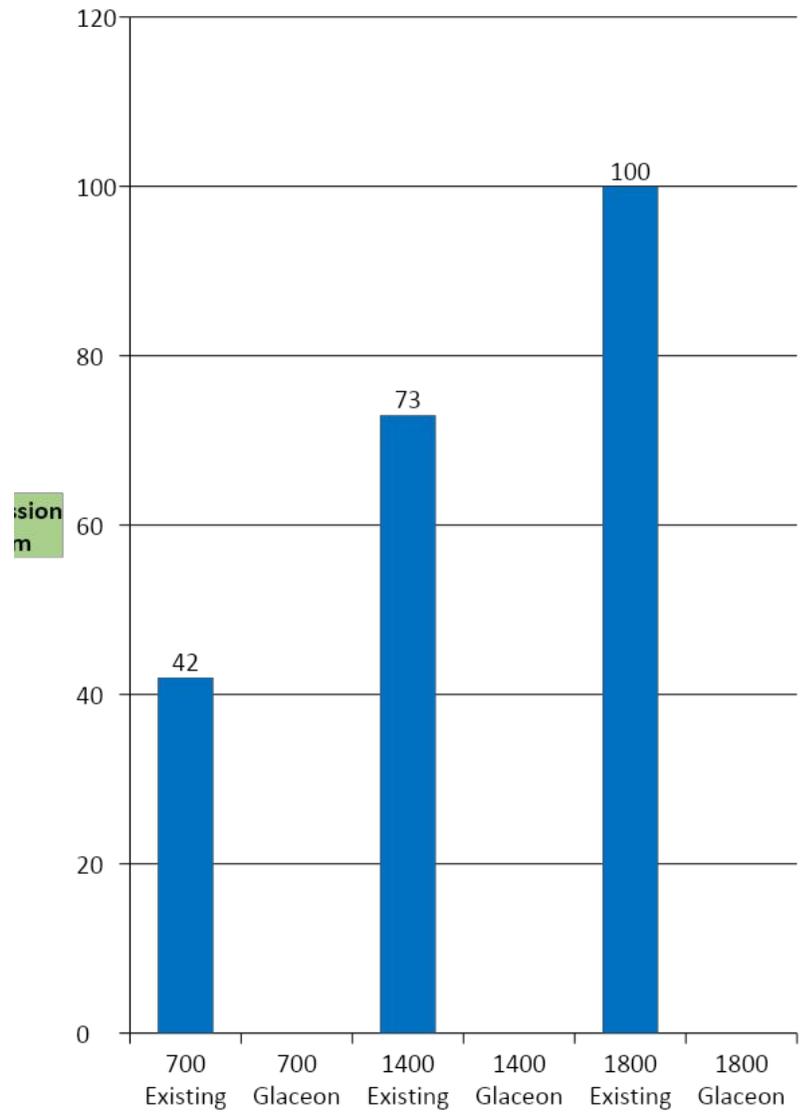
21/12/2023

NO emission



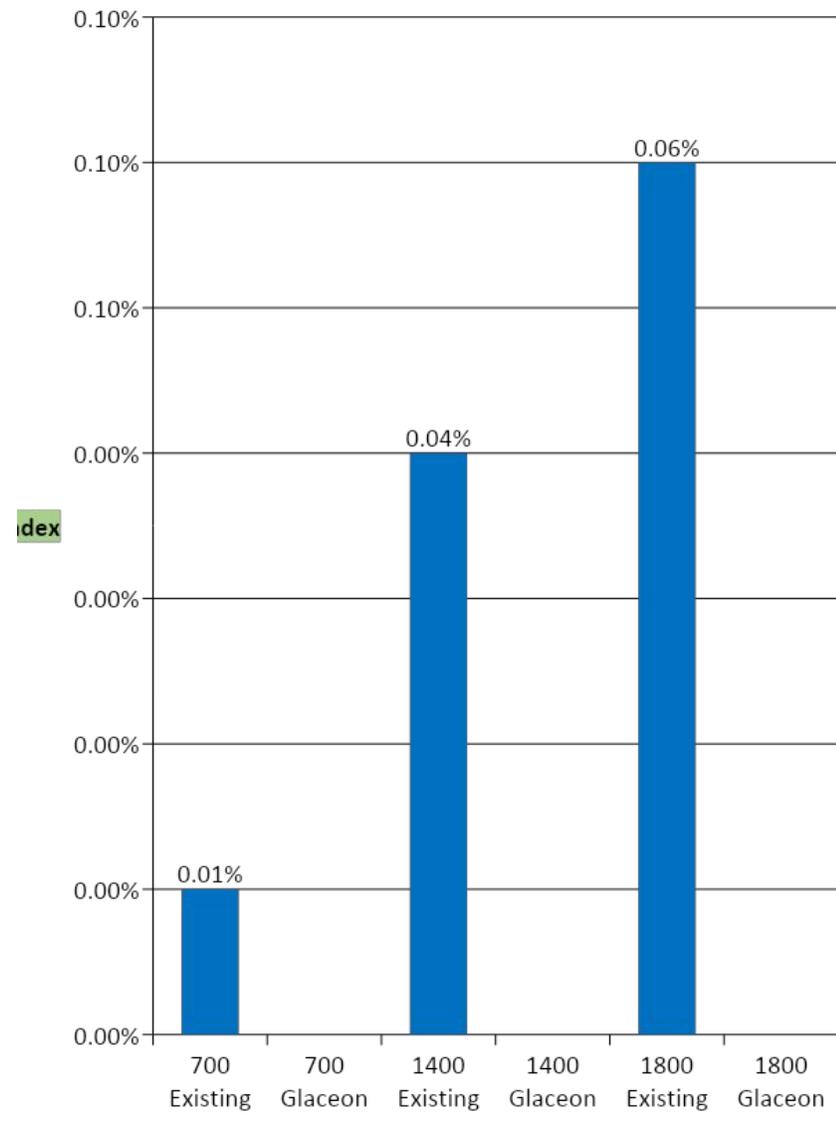
Engine speed in rpm

CO emission



Engine speed in rpm

Poison index



Engine speed in rpm