Version No.

Revision Date Authorisation Date 26/01/1999

Material Safety Data Sheet

ENOC VULCAN 330 Product Name

Product Code 200004

1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND COMPANY

Product Name ENOC VULCAN 330

Viscosity SAE 10W

Application DIESEL ENGINE OIL

Company Identification ENOC International Sales LLC

ENOC Complex, Sheikh Rashid Road,

P.O. Box: 6442, Dubai

Telephone 971 4 3374400 Fax 971 4 3134602

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPOSITION Blended with mineral base oil SN 150 CAS 64742-65-0 at 94.86% with additive

concentrate at 5.14%

Chemical nature: Petroleum derived severely refined mineral base product in which the polycyclic

aromatic hydrocarbons (PCA or PAH) content measured by IP 346 is above 3%.

Substance contributing to hazards: None to our knowledge in normal use.

Impurities contributing to hazards: none to our knowledge.

3. HAZARDS IDENTIFICATION

According to experience the product is considered to be harmless to health if handled correctly.

4. FIRST AID MEASURES

General Information Remove contaminated clothing immediately, to be disposed of or washed before reuse.

Inhalation If inhaled, provide fresh air, warmth, rest and medical advice if necessary. **Skin Contact** Clean areas of skin affected immediately with soap and copious water.

Eye Contact In case of contact with eyes, rinse immediately with plenty of water until irritation subsides. Ingestion

Allow the patient to vomit on his own accord. Give copious water to drink and seek

medical help if necessary.

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5. FIRE FIGHTING MEASURES

Extinguishing MediaTo suit local surroundings (eg water spray, carbon dioxide, foam, dry powder).

Special Exposure Hazard Decomposition products released in a fire should be considered as probably harmful if inhaled

(eg hydrogen sulphide plus decomposition products -see Stability and Reactivity).

Protective Equipment Wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Methods for Cleaning UpTake up with absorbent material (eg sand, sawdust). Collect in sealable containers.

Do not allow to get into waste water or waterways; if this occurs, inform the relevant authority

at once.

7. HANDLING & STORAGE

Advice on Safe Handling Handle in accordance with good industrial hygienic practices for handling chemicals.

Do not handle at temperatures $> 85^{\circ}$ C.

Advice on Protection against

Fire & Explosion

Storage Conditions Ensure adequate ventilation of storage area. Keep container tightly closed, cool (< 65 °C)

and dry.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Controls Monitoring of the workplace should be considered in accordance with EH40 (or equivalent)

Controls

LTEL (8 hour TWA): 5 mg/m³ (EH40, 1998) STEL (15 min): 10 mg/m³ (EH40, 1998)

OES data for oil mist, mineral

In addition, the Reciprocal Calculation Procedure (RCP) for hydrocarbons should be

considered (EH40, 1998)

Engineering Controls Provide suitable ventilation if necessary.

Personal Protection Observe normal safety standards for handling chemicals. Avoid inhalation of vapour.

Avoid contact with skin and eyes. Wear personal protective equipment appropriate for the

task eg gloves, respirators (eg if ventilation is inadequate), appropriate

overalls.

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9. PHYSICAL & CHEMICAL PROPERTIES

Specific Gravity Approx. 0.88 (ASTM D1298)

Auto-ignition TemperatureN/AVapour PressureN/AToxicityN/ARelative DensityN/ABoiling Point390°C

Pour Point -33°C (ASTM D97)

Flammability N/A

Flash Point Open cup: approx. 220°C

Viscosity At 100° C: approx. $6.10 \text{ mm}^2/\text{s}$ (ASTM D445)

Viscosity At 40°C: approx. 36.34 mm²/s
Apparent Viscosity At -20°C: approx. 2500mPa.s

pH N/A

Solubility In water: negligible

Description Light pale liquid with petroleum like odour.

10. STABILITY & REACTIVITY

Stability N/A

Thermal Decomposition Not determined

Hazardous Reactions The product does not undergo hazardous polymerisation.

Hazardous Decomposition Oxides of carbon, aldehydes, ketones, and other products of incomplete combustion plus

Products Combustion products of nitrogen and sulphur.

11. TOXICOLOGICAL INFORMATION

Acute ToxicityNo acute toxicological data are available.

LD₅₀ rat (oral): N/A LD₅₀ rat (i.v.): N/A

Dermal Compatibility N/A
Mucous Membrane N/A

Compatibility

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12. ECOLOGICAL INFORMATION

Ecotoxicology

Ecotoxicological data are not available.

Further Ecological Information

N/A

Further Information

The product must not enter ground or waste water. If this occurs, inform the local

authority at once.

Calcium content: approx. 0.328% by mass (atomic absorption)

13. DISPOSAL CONSIDERATIONS

Advice on Disposal In accordance with national and local authority regulations, eg special waste or

incineration; after consultation with the operators.

Contaminated PackagingTreat emptied containers in the same way as the product, or if possible wash out

thoroughly and recycle.

14. TRANSPORT INFORMATION

Transportation Measures Not determined

15. REGULATORY INFORMATION

Classification & Labelling Product is not classified in accordance with the Chemical (Hazard Information and

Packaging for Supply Regulations (CHIP 97).

Risk Phrases N/A

Safety Phrases N/A

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16. OTHER INFORMATION

Date of Issue 26/01/1999

General Summary

N/A

This information is based on our present state of knowledge and is intended to describe our products from the point of view of the safety requirements. It should not be construed as guaranteeing specific properties.