

DESCRIPTION:

Omega 903 is a diesel oil additive that compensates for inherently unsatisfactory diesel engine operation, keeps diesels operating for extended periods, cleans out the injector system, and prevents harmful sludge from accumulating in vehicle and fuel storage tanks.

PROBLEMS INHERENT TO DIESEL OPERATION:

Diesel engines are very sensitive to the quality of fuel they use in terms of flexibility and power output. The use of unstable fuel formulations can cause gumming up problems that block

filters, pumps and injectors and lead to complete breakdown of machinery within a very short period of service life.

Diesel oil is widely available to the industrial user, but unfortunately, there is nothing the user can do a carefully check that only a high quality diesel oil is supplied.

A low quality diesel fuel quickly clogs injectors, gums up crankcases and filters, and leads to uneven and unbalanced power compression strokes. If the situation is allowed to continue indefinitely, the resultant engine damage can lead to sheared crankshafts, bent rods, scored cylinders and cracked pistons.

HOW OMEGA 903 WORKS:

Omega 903's ashless detergent additives, when added to diesel fuel, resist the formation of gumming and residues. This preventative action helps prevent injector tips, inlet and exhaust valves, and filters from becoming clogged.

This residue-resistant action enables the diesel injector to function properly at all times and Omega 903 continues to clean the engine as it operates, to ensure optimum performance at all times.

Omega 903 also contains an advanced olefin corrosion inhibitor which acts by "plating" engine parts with a micronized lubricant film that is impervious to high temperature and adheres to metallized parts. This "lubrication plating" action protects the engine parts from the effects of oxidation (rusting) and provides for slippery, friction free surfaces.

This dual "plating" and "friction-reducing" function of Omega 903 gives diesel engines unparalleled protection from the effects of fuel-line by-product corrosion action, and ensures superior friction-free lubricity to improve parts life.

DOWNTIME PREVENTER:

The diesel engine has an inherently long service life due to its robust design and compression properties. However, in many instances, maintenance and adjustment downtime can be enormous as these engines are normally running at 80-90% power capacity at most times. Omega 903, added to the diesel fuel can reduce downtime due to injector clogging, filter changing, engine sludge and varnish build-up removal, and engine breakdown, by preventing the causes at the outset.

Many diesel operators have to work in not less that perfect conditions of tough climatic environment, unavailability of premium diesel fuel, lack of spare parts, minimal maintenance and repair facilities, lack of trained personnel and prolonged equipment operating time. Engine maintenance in such circumstances is normally stretched to maximum limits or equipment is kept operating until breakdown occurs.

Omega 903 can improve production time by preventing diesel engine breakdowns, through regular use. Omega 903. can eliminate many instances of maintenance downtime by ensuring engine

cleanliness. Omega 903 can save diesel fuel and improve engine power. Omega 903 protects engine parts. In independent tests, Omega 903 diesel fuel additive has stretched diesel engine maintenance intervals by up to 3 times without detrimental effects.

HOW TO APPLY:

TYPE USE	TREATMENT DOSAGE
Bulk Storage:	1 part Omega 903 to 1,500 parts diesel fuel.
'One Shot' Improvement:	2-3 parts Omega 903 to 2,000 parts diesel fuel.

OMEGA 903 AS A FUEL OIL ADDITIVE:

Omega 903 is also ideal for use as a multi-purpose fuel oil additive for the treatment of industrial bulk fuel oils – including bunker oils, heating oils, burner oils and diesel oils.

When added to the fuel oil in storage tanks, special additives in Omega 903 prevent the precipitation and separation of the residue (polymerization) of the parent oil and all the fuel oil is, therefore, useable. This polymerization preventing action gives the fuel oil a higher BTU value compared to untreated oils where sludge separation occurs. Omega 903 can reduce fuel requirements at given steam loads.

Omega 903 contains detergents and dispersant compounds that enable the treated fuel oil to burn thoroughly. Burners remain clean and the need for burner cleaning is much reduced. Settings can be maintained for maximum efficiency with the resultant increase in combustion efficiency.

The special corrosion inhibitors in Omega 903 are effective in both oil and water phase. Corrosion caused by the hygroscopic (water absorption) tendency of fuel oils is prevented and Omega 903 forms a corrosion-resistant film on the contact surfaces of the fuel oil storage tank and the equipment through which the treated oil is pumped.

HOW TO APPLY:

The dosage of Omega 903 varies with the grade of fuel oil being used.

- DISTILLATES (No. 2, Diesel Oil, and similar):**
1 gallon of Omega 903 added to every 3,500 gallons of fuel oil (1 litre per 3,500 litres).
- RESIDUES (No. 6 Heavy Oils, etc):**
2 to 8 gallons of Omega 903 added to every per 3,500 gallons of fuel oil (2 to 8 litres per 3,500 litre.)

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SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name: Omega 903
Container size: 300 ml, 5 l, 20 l, 205 l

1.2. Relevant identified uses of the substance or mixture and uses advised against

Application: Additive for diesel oil.

1.3. Details of the supplier of the safety data sheet

Supplier: EU importer: Sovereign Lubricants (UK) Ltd, Crowtrees Lane,
Rastrick, West Yorkshire, HD6 3LZ
T: 01484 718674 - F: 01484 400164
enquiries@sovereign-omega.co.uk
www.sovereign-omega.co.uk

Manufacturer: ITW PP & F Korea Limited.
13th Fl., Unit B, PAX Tower
609 Eonju-ro, Gangnam-gu
Seoul, Korea 06108
Tel:+82-2-2088-3560
Fax:+82-2-513-3567
magna@magnagroup.com
www.magnagroup.com

Further information can be obtained from: magna@magnagroup.com

1.4. Emergency telephone number

Emergency telephone: Call a Poison Center, emergency number or doctor/physician.

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP: The product is not classified.

2.2. Label elements

The substance/mixture does not meet the criteria for classification, but the following labelling must be applied:

EUH210 Safety data sheet available on request.

2.3. Other hazards

PBT/vPvB: This product does not contain any PBT or vPvB substances.

Other: Prolonged or repeated contact with skin may cause redness, itching, irritation, eczema, skin cracking and oil acne. The harmful effects may increase in used oil.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

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The product contains: mineral oil and additives. (DMSO < 3% (IP 346))

All substances in the product are either registered or exempt from registration under REACH.
Only classified substances above threshold limits or substances with an exposure limit are shown.

CLP:

%:	CAS-No.:	EC No.:	REACH Reg. No:	Chemical name:	Hazard classification:	Notes:
1-<10	-	-	-	Barium complex	Skin Irrit. 2;H315	

References: The full text for all hazard statements is displayed in section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation: Move into fresh air and keep at rest. In case of persistent throat irritation or coughing or after inhalation of oil mist: Seek medical attention and bring along these instructions.

Skin contact: Remove contaminated clothing immediately and wash skin with soap and water. In case of rashes, wounds or other skin disorders: Seek medical attention and bring along these instructions.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Seek medical attention and bring along these instructions.

Ingestion: Immediately rinse mouth and drink plenty of water. Keep person under observation. If person becomes uncomfortable seek hospital and bring these instructions.

4.2. Most important symptoms and effects, both acute and delayed

4.3. Indication of any immediate medical attention and special treatment needed

Medical attention/treatments: Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media: Small fires: Extinguish with carbon dioxide or dry powder.
Larger fires: Extinguish with foam, carbon dioxide or dry powder.
Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards: During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Protective equipment for fire-fighters: Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Avoid inhalation of oil mist and contact with skin and eyes. Follow precautions for safe handling described in this safety data sheet.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Absorb spillage with oil-absorbing material. Clean contaminated area with oil-removing material.

6.4. Reference to other sections

References: For personal protection, see section 8.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Safe handling advice: Observe good chemical hygiene practices. Avoid prolonged and repeated contact with oil, particularly used oil. Always remove oil with soap and water or skin cleaning agent, never use organic solvents. Do not use oil-contaminated clothing or shoes, and do not put rags moistened with oil into pockets.

Technical measures: Use work methods which minimise oil mist production.

Technical precautions: When working with heated oil, mechanical ventilation may be required.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures for safe storage: No special precautions.

Storage conditions: Store in tightly closed original container.

7.3. Specific end use(s)

Specific use(s): No information available.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No occupational exposure limit assigned.

8.2. Exposure controls

<u>Engineering measures:</u>	Provide adequate ventilation and minimise the risk of inhalation of vapours and oil mist. Provide access to washing facilities incl. soap, skin cleanser and fatty cream.
<u>Personal protection:</u>	Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
<u>Respiratory equipment:</u>	In case of inadequate ventilation or risk of inhalation of vapours, use suitable respiratory equipment with combination filter (type A2/P3).
<u>Hand protection:</u>	Wear protective gloves. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.
<u>Eye protection:</u>	Risk of splashes: Wear goggles/face shield.
<u>Skin protection:</u>	Wear apron or protective clothing in case of splashes.
<u>Hygiene measures:</u>	Wash hands after contact. Wash contaminated clothing before reuse.
<u>Environmental Exposure Controls:</u>	Not available.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance: Liquid.
Colour: Purple.
Odour: Almost odourless.
Odour threshold: Not available.
pH: Not available.
Melting point / freezing point: Not available.
Boiling point: Not available.
Flash point: > 150 °C
Evaporation rate: Not available.
Flammability (solid, gas): Not applicable.
Explosive limits Not available.
Vapour pressure: Not available.
Vapour density: Not available.
Relative density: ~0.9
Solubility: Insoluble in water. (< 0,1 g/l)
Partition coefficient (n-octanol/water): Not available.
Auto-ignition temperature (°C): Not available.
Decomposition temperature (°C): Not available.
Viscosity: > 23 mm²/s (40°C)
Explosive properties: Not available.
Oxidising properties: Not available.

9.2. Other information

Other data: Not available.

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SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity: Not reactive.

10.2. Chemical stability

Stability: Stable under normal temperature conditions.

10.3. Possibility of hazardous reactions

10.4. Conditions to avoid

Conditions to avoid Avoid heat.

10.5. Incompatible materials

Incompatible materials: Strong oxidising substances.

10.6. Hazardous decomposition products

Hazardous decomposition products: None in particular.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

The harmful effects may increase in used oil.

Acute Toxicity (Oral): Based on available data, the classification criteria are not met.

Acute Toxicity (Dermal): Based on available data, the classification criteria are not met.

Acute Toxicity (Inhalation): Based on available data, the classification criteria are not met.

Skin Corrosion/Irritation: Based on available data, the classification criteria are not met.

Serious eye damage/irritation: Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive Toxicity: Based on available data, the classification criteria are not met.

STOT - Single exposure: Based on available data, the classification criteria are not met.

STOT - Repeated exposure: Based on available data, the classification criteria are not met.

Aspiration hazard: Based on available data, the classification criteria are not met.

Inhalation: Inhalation of oil mist or vapours formed during heating of the product will irritate the respiratory system and provoke coughing.

Skin contact: Degreasing. Prolonged or frequent contact may cause redness, itching, irritation, eczema, skin cracking and oil acne.

Eye contact: Splashes may irritate.

Ingestion: May irritate and cause malaise.

Specific effects: Prolonged or repeated contact with used oil may cause serious skin diseases, such as dermatitis and skin cancer.

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SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity: Oil spills are generally hazardous to the environment.

12.2. Persistence and degradability

Degradability: The product is expected to be slowly biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No data available on bioaccumulation.

12.4. Mobility in soil

Mobility: No data available.

12.5. Results of PBT and vPvB assessment

PBT/vPvB: This product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

Other adverse effects: None known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

Waste is classified as hazardous waste.

Waste from residues: EWC-code: 13 02 05

Contaminated packaging: Disposal through approved facilities is recommended.

Empty packaging: Empty packaging is not considered hazardous.

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SECTION 14: TRANSPORT INFORMATION

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

UN-No: -

14.2. UN proper shipping name

Proper Shipping Name: -

14.3. Transport hazard class(es)

Class: -

14.4. Packing group

PG: -

14.5. Environmental hazards

Marine pollutant: -

Environmentally Hazardous substance: -

14.6. Special precautions for user

Special precautions: None known.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk: Not relevant.

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulation: Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, with amendments.
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.
The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.
EH40/2005, Workplace exposure limits 2005, with amendments.
The List of Wastes (England) (Amendment) Regulations 2005. (SI 2005 No. 895).

15.2. Chemical Safety Assessment

CSA status: No chemical safety assessment has been carried out.

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SECTION 16: OTHER INFORMATION

The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.

The following sections contain revisions or new statements: 2, 3, 8, 12, 13, 14, 15, 16.

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TM - The OmegaTM trade mark is the property of Magna Industrial Co. Limited and its associated companies.

Abbreviations and acronyms

used in the safety data sheet: PBT = Persistent, Bioaccumulative and Toxic.
vPvB = very Persistent and very Bioaccumulative.

Additional information: Classification according to Regulation (EC) No. 1272/2008: Calculation method.

Wording of H-statements:

H315 Causes skin irritation.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.

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