RADIATOR RUST INHIBITOR & WATER PUMP LUBRICANT:

Probably the most neglected part of a car or truck is the cooling system. Most vehicle owners give the cooling system only cursory attention. The cooling systems of today's modern engines face two great difficulties. These are lack of lubrication and rust. Lack of lubrication results in the pre-mature failure of the water pump, and also causes sticking of the thermostat and improper operation of the thermostat. Rust can and often does cause complete radiator failure.

PRESENT PROBLEMS:

Surveys show that 1 out of every 5 vehicles have cooling system breakdowns each year, especially in summertime. A cooling system breakdown in a private car is inconvenient but such a breakdown in a commercial vehicle such as a truck or lorry or a mining or construction vehicle can prove disastrous and is usually exceedingly expensive in lost production and repair cost. One vehicle failure usually holds up more than that one vehicle. Substantial lost production, upset schedules, wasted man-hours, delayed deliveries and lost customers can be the costly result of the cooling system failure of a commercial vehicle.

Radiators and cooling systems in modern vehicles have to work much harder than cooling systems had to in the past. It is much more important today than ever in the past to use Omega 906 water pump lubricant and radiator conditioner. Today, vehicles are much more apt to have cooling system breakdowns than in the past.

The internal combustion engine has a thermal efficiency of only about 25%. 75% of that energy is wasted, mostly in the form of heat. If this excess heat is not removed properly, it can cause great damage to both the transmission and engine parts. The cooling system has to absorb and dissipate about half this heat via various mechanical parts and the fluid in the radiator, (A small percentage of vehicles are air cooled).
OMEGA 906 - THE PROBLEM SOLVER:

Omega 906 is the solution to 98% of all cooling system problems. It does the following things:

1. It raises the boiling point of the water thus causing a greater differential between the cooling air and the core, which greatly increases the radiator heat transfer.
2. Stops water pump cavitation which enables a higher coolant flow rate.
3. Inhibits corrosion. As is well known, several different metals are used together in radiator construction including cast iron, copper, steel, aluminium, brass and solder. These metal have different places in the galvanic scale and galvanic action will occur unless Omega 906 is used. Omega 906 retards corrosion of all metals.
4. Omega 906 controls scale and greatly increases cooling system efficiency. A variety of water is used in coolant systems and many of these waters are high in mineral content. This causes scaling in even the hottest parts of the engine and restricts and retards the transfer of heat from the engine block. A mere 1.5 mm of mineral scale will cause a drop of up to 40% in heat transfer. Scale can cause warped engine blocks and heads and overheating damage.

FORMULA:

50-75ml Omega 906 for every 10 litres radiator water capacity every 8,000kms. For heavily scaled and corroded surfaces, repeat draining the system at more frequent intervals until all scale is removed.

HOW TO APPLY:

1. When the engine is cold, remove the radiator cap. Drain the radiator through the drain plug or drain cock. To speed the draining process, the drain plug or plugs in the block can also be removed.
2. Reinstall the block drain plugs and close the drain cock. Fill the cooling system with water.
SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name: Omega 906

Container size: 300 ml & 5 l **Manufactured in Australia**

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

Application: Radiator water additive

1.3. Details of the supplier of the safety data sheet

Supplier: 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
www.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: Eye Irrit. 2;H319

2.2. Label elements

Warning

H319 Causes serious eye irritation.

P280 Wear eye protection and gloves.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/attention.

P501 Dispose of contents/container in accordance with local regulations.

2.3. Other hazards

Other: Prolonged or repeated contact with skin may cause redness, itching, irritation, eczema, skin cracking and oil acne. Degreasing to skin. The harmful effects may increase in used oil. Oil spills are generally hazardous to the environment.
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 up to 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

**Symptoms/effects:** See section 11 for more detailed information on health effects and symptoms.

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.

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.
For waste disposal, see section 13.

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): Not relevant.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No occupational exposure limit assigned.

8.2. Exposure controls

Engineering measures: 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.

Personal protection: Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Respiratory equipment: In case of inadequate ventilation or risk of inhalation of oil mist, suitable respiratory equipment with combination filter (type A2/P3) can be used.

Hand protection: Wear protective gloves. Nitrile gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable. Other types of gloves can be recommended by the glove supplier.

Eye protection: Risk of contact: Wear goggles/face shield.

Skin protection: Wear apron or protective clothing in case of splashes.

Hygiene measures: Wash hands after contact. Wash contaminated clothing before reuse.

Environmental Exposure Controls: Not available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance: Amber-coloured liquid
Odour: Petroleum.
pH: Not relevant
Boiling point: Not available
Flash point: 100°C
Explosive limits: Not available
Vapour pressure: Not available
Relative density: 1
Solubility: Miscible with water.

9.2. Other information

Other data: Kinematic viscosity at 40°C: >7 mm²/s
SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
Reactivity: None known.

10.2. Chemical stability
Stability: Stable under normal temperature conditions.

10.3. Possibility of hazardous reactions
Hazardous Reactions: None known.

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
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: Causes serious eye irritation.
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.
SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity
Ecotoxicity: Oil spills are generally hazardous to the environment. The product contains a substance which may cause long term adverse effects in the aquatic 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: Not relevant.

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 03 07
EWC-code: 13 08 02 (Emulsion.)
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: Not regulated.

14.2. UN proper shipping name
Proper Shipping Name: Not regulated.

14.3. Transport hazard class(es)
Class: Not regulated.

14.4. Packing group
PG: Not regulated.

14.5. Environmental hazards
Marine pollutant: Not regulated.
Environmentally Hazardous substance: Not regulated.

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 known.

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
National regulation:
The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.

15.2. Chemical Safety Assessment
CSA status: Not relevant.
THE USER MUST BE INSTRUCTED IN THE PROPER WORK PROCEDURE AND BE FAMILIAR WITH THE CONTENTS OF THESE INSTRUCTIONS.

HANDLING OF USED OILS:
Protect health - avoid prolonged and repeated skin contact. Wash with soap and water. Protect the environment - do not pollute drains, water courses or the soil. Contact your local authority for any used oil disposal instructions.

THE FOLLOWING SECTIONS CONTAIN REVISIONS OR NEW STATEMENTS: 1, 2, 3, 11, 16.