

606

# **DESCRIPTION:**

Omega 606 is a high viscosity, multi-grade hydraulic oil, with a greater film strength than ordinary hydraulic oils. Omega 606 has been designed to function with superior results, without change, for 10 years.

# TEMPERATURE RESISTANCE:

Omega 606 serves to minimize wear and frictional energy take-up by resisting temperature build-up. Some hydraulic oils are made from Iranian heavy crude, Nigerian crude, Qatar crude, Ratawi crude, or other such low quality oils which are prone to large temperature fluctuations. This results in pressure loss, unnecessary energy intake and slow, sluggish response.

# **VISCOSITY:**

Omega 606 is highly viscous, so unlike ordinary hydraulic oils which are made from naphthenic crude, refined-waste or low-grade sulphur oils, Omega 606 ensures constant pressure, high volumetric efficiency, an absence of slippage and sound application.

#### LUBRICITY:

The oil in a hydraulic system must also provide excellent lubrication of moving parts. Omega 606 lubricates the friction-prone areas, and therefore facilitates motion. A special paraffinic mineral base oil makes Omega 606 a superior hydraulic oil.

# **OXIDATION AND WEAR RESISTANCE:**

Omega 606 is a high grade oil that combats oxidation, where low grade oils have an acidic build-up (leading to corrosion of the entire hydraulic system), Omega 606 has a very low pH, and therefore there is no acid build-up and no resultant oxidation. Omega 606 is also fortified with special metal deactivators, and these, combined with its exceptional lubrication abilities, lessen metal-to-metal contact and reduce wear to a minimum.

# **TYPICAL DATA:**

TEST	ASTM	TEST RESULT
	TEST METHOD	SAE10W40
ISO Viscosity Grade	D-2422	100
Appearance	Visual	Red
Density, Kg/L @ 15°C	D-1298	0.890
Viscosity, cSt @ 40°C	D-445	97
Viscosity, cSt @ 100°C	D-445	14.3
Viscosity Index	D-2270	152
Flash Point, COC, °C	D-92	240(464)
Pour Point, °C	D-97	-33(-27)
Total Acid Number, mg KOH/g	D-974	0.60



TEST	ASTM	TEST RESULT	
	TEST METHOD	SAE10W40	
Foaming Characteristics -			
All Sequences, After Settling	D-892	Nil	
Rust Preventing Characteristics -			
Saltwater after 48 hrs @60°C	D-665	Pass	
Oxidation Characteristics - Hours to TAN 2.0	D-943	>2000 min.	
Aniline Point, °C(°F)	D-611	102(215)	
Ash, Sulphated, % Mass	D-874	0.071	
Zinc, % Mass	AA	0.040	
Shear Stability, Viscosity Loss @ 40°C	DIN 51382	3.3	
Shear Stability, Viscosity Loss @ 100°C	DIN 51382	3.3	
Wear Tests/EP			
Pump Type	Vickers 104C	Pass	
Pump Type	Vickers 35VQ25	Pass	
Pump Type	Denison T5D	Pass	
Pump Type	Denison P46	Pass	
Poclain	Poclain	Pass	
Racine	Racine	Pass	
Air Entrainment (Pass, <6000)	DIN-51381	180	
Filterability, Wet/Dry Ratio (Pass, <2.0)	Denison 1.2u	1.36	





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

#### 1.1. Product identifier

Product name: Omega 606
Container size: 5 I, 20 I, 205 I

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

Application: Hydraulic oil.

## 1.3. Details of the supplier of the safety data sheet

Supplier: EU importer:

.

Manufacturer: ITW PP & F Korea Limited.

13th FI., 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

# 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: Not classified.

2.2. Label elements

The substance/mixture does not meet the criteria for classification and labelling.

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. Degreasing to skin. The harmful effects may

increase in used oil.

#### **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

# 3.2. Mixtures

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CLP:

<u>%:</u> <u>CAS-No.:</u> <u>EC No.:</u> <u>REACH Reg. No:</u> <u>Chemical name:</u> <u>Hazard classification:</u> <u>Notes:</u>

60-100 64742-65-0 265-169-7 01-2119471299-27- Distillates (petroleum), - L

solvent-dewaxed heavy paraffinic; Baseoilunspecified

Notes: L: DMSO < 3% (IP 346)

0058

#### **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: Seek medical attention and bring 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.

<u>Ingestion:</u> 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

<u>Specific hazards:</u> During fire, gases hazardous to health may be formed.

#### 5.3. Advice for firefighters

Protective equipment for fire- Selection of respiratory protection for fire fighting: follow the general fire

<u>fighters:</u> 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** Do not discharge into drains, water courses or onto the ground.

precautions:

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.

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

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

7.2. Conditions for safe storage, including any incompatibilities

<u>Technical measures for safe</u> No special precautions.

storage:

Storage conditions: Store in tightly closed original container.

7.3. Specific end use(s)

Specific use(s): Lubricant.

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#### **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### 8.1. Control parameters

No occupational exposure limit assigned.

8.2. Exposure controls

Engineering measures: Provide adequate ventilation. Observe Occupational Exposure Limits 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.

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.

<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.

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

<u>Skin protection:</u> Wear apron or protective clothing in case of splashes.

<u>Hygiene measures:</u> Wash hands after handling. Wash contaminated clothing before reuse.

Environmental Exposure

Controls:

Not available.

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# **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

#### 9.1. Information on basic physical and chemical properties

<u>Appearance:</u> clear red liquid

<u>Odour:</u> Almost odourless.

Odour threshold:

Description:

Not available.

Not available.

Melting point / freezing point:

Boiling point:

Not available.

Not available.

Flash point: > 150°C

Evaporation rate:Not available.Explosive limitsNot available.Vapour pressure:Not available.Vapour density:Not available.

Relative density: ~ 0,9

Solubility: insoluble in water

Partition coefficient (n-

octanol/water):

Not available.

Auto-ignition Not available.

temperature (°C):

<u>Decomposition</u> Not available.

temperature (°C):

Viscosity:Not available.Explosive properties:Not available.Oxidising properties:Not available.

9.2. Other information

Other data: Kinematic viscosity: ~ 95 mm²/s (40 °C)

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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 None specific.

10.5. Incompatible materials

<u>Incompatible materials:</u> Strong oxidising substances.

10.6. Hazardous decomposition products

<u>Hazardous decomposition</u> None in particular.

products:

#### **SECTION 11: TOXICOLOGICAL INFORMATION**

#### 11.1. Information on toxicological effects

Acute Toxicity (Oral):

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.

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

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

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

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

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

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

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

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

Germ cell mutagenicity:

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

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

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

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

<u>Inhalation:</u> 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.

<u>Specific effects:</u> Prolonged or repeated contact with used oil may cause serious skin diseases,

such as dermatitis and skin cancer. The harmful effects may increase in used oil.

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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

<u>Degradability:</u> 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

<u>PBT/vPvB:</u> 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 01 10

#### **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

<u>UN-No:</u> -

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

<u>Transport in bulk:</u> Not relevant.

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#### **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

<u>CSA status:</u> 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.

#### 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.2, 8, 12, 14, 15, 16.

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#### Abbreviations and acronyms

<u>used in the safety data sheet:</u> PBT = Persistent, Bioaccumulative and Toxic.

vPvB = very Persistent and very Bioaccumulative.

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

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.

Made by DHI - Environment and Toxicology, Agern Allé 5, DK-2970 Hørsholm, Denmark. www.dhigroup.com.