

DESCRIPTION:

OMEGA 631 Superior Quality Engine Oil is a unique neutral engine oil engineered to optimize engine performance with its high purity lubrication characteristics. Guaranteeing an unmatched lubricity, OMEGA 631 significantly extends oil change periods and improves resistance to oxidation and corrosion. Its high viscosity ensures superior engine protection in the most demanding operating conditions and fluctuation in temperatures. OMEGA 631 is the genuine all-climate super engine oil.



QUALITY BASE STOCKS:

OMEGA 631 is manufactured from the highest quality Pennsylvania paraffinic neutral base stocks. This top quality base oil eliminates saturation caused by unfavorable molecular activity and oxidation. The paraffinic base stocks used by OMEGA are considered by petro-engineers as the finest that money can buy.



KEY BENEFITS:

- Optimized engine efficiency, yet with longest top-up / oil change cycle
- □ Suitable for use under extreme climatic conditions
- Genuinely made from prime Pennsylvania paraffinic neutral oils for the most reliable and outstanding lubrication performance
- Proven built-in versatility for the widest applications in virtually all engines reduce stock-keeping costs for commercial fleets & industrial plants
- □ OMEGA's state-of-the-art proprietary Megalite ★ supplements coat and protect surfaces to minimize metal-to-metal contact

RESIDUE RESISTANT:

OMEGA 631 Super Quality Engine Oil offers outstanding lubricity as well as performance stability at high temperatures, therefore 'boiling-off' is prevented and effective lubrication is ensured. The risk of "boiling-off", normally as one of the major causes of carbon build-up with ordinary engine oils, is minimized with the application of OMEGA 631.

ADDITIVE PACKAGE ADVANTAGE:

OMEGA 631 Superior Quality Engine Oil is formulated with the most advanced additive package featuring the OMEGA's proprietary Megalite supplements. OMEGA Megalite enhances the overall lubricity by its unique polymeric protection characteristics.

OMEGA 631's advantageous additive package also contains detergent and dispersant additives that keep rocker covers, valve lifters, oil screens, pistons rings and lubricate surfaces free from harmful sludge.



OPIM631-1	Ver. 2.0	Rev. 3.0
Rev. Date: 2 Jan 2019		
Reference: CKL		

APPLICATIONS:

MEGA 631 Super Quality Engine Oil is approved for applications in all high performance gasoline engines. It is specially recommended for Rotary Engines.

OMEGA 631 is also suitable for gasoline (petrol) and light-duty, naturally aspirated diesel engines. OMEGA 631 meets or exceeds the following operational specifications:

- □ Ford M2C-153E
- □ Rover RES.22.OL.G-4
- Mercedes Benz MB 229.1
- □ Volkswagen 502/505
- API Service Classifications: SM, SL, SJ/CF, CD
- □ ACEA Classifications: A3/B3/B4-08



OMEGA 631 meets or exceeds the engine specifications of major auto-manufacturers

TYPICAL DATA:

TEST	ASTM	TEST RESULT
TEST	TEST METHOD	SAE 10W40
Appearance	-	Red
Density, Kg/L	D-1298	0.885
Viscosity, cP	D-2602	3063 at -25°C
Viscosity, cSt @ 40°C	D-445	103.3
Viscosity, cSt @ 100°C	D-445	14.0
Viscosity Index	D-2270	137
Flash Point, COC, °C (°F)	D-92	223(433)
Pour Point, °C (°F)	D-97	-36(-33)
Total Base Number, mg KOH/g	D-2896	8.88
Foaming Characteristics -		
All Sequences, After 10 Minutes Settling	D-892	Nil
Ash, Sulphated, % Mass	D-874	1.068
Calcium, % Mass	D-4951	0.273
Zinc, % Mass	D-4951	0.114
Nitrogen, % Mass	D-5291	0.081
Phosphorus, % Mass	D-4951	0.104

The characteristics given above are typical of current production only and slight batch to batch variations should be expected.



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OPIM631-2	Ver. 2.0	Rev. 4.0
Rev. Date: 2 Ja	an 2019	
Reference: CKL		



Product name:	Omega 631	Page:	1/9
Supersedes date:	2016-05-07	Last revised date:	2019-08-23
Product No.:		SDS-ID:	GB-EN/7.0
SECTION 1: IDENTIFIC COMPANY/UNDERTAK	ATION OF THE SUBSTANCE/MIXTUR	E AND OF THE	
1.1. Product identifier			
Product name:	Omega 631		
	(SAE 20W/50, SAE 10W/40)		
Container size:	5 I, 20 I		
1.2. Relevant identified use	es of the substance or mixture and uses advis	sed against	
Application:	Engine oil.		
1.3. Details of the supplier	<u>of the safety data sheet</u>		
Supplier:	EU importer:		
Manufacturer:	Ωmega Manufacturing Division		
	13th floor, Unit B, PAX Tower, 609 Eonju	u-ro	
	Gangnam-Gu, Seoul		
	Korea 06108		
	Tel:+82-2-2088-3560		
	Fax:+82-2-513-3567		
1.4. Emergency telephone	number		
Emergency telephone:	Call a Poison Center, emergency number	er or doctor/physician.	
SECTION 2: HAZARDS			
2.1. Classification of the su	ibstance or mixture		
<u>CLP:</u>	The product is not classified.		
2.2. Label elements			
	The substance/mixture does not meet th	ne criteria for classification a	and labelling.

2.3. Other hazards	
<u>PBT/vPvB:</u>	This product does not contain any PBT or vPvB substances.
<u>Other:</u>	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 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

The product contains: mineral oil and additives.

No classified ingredients, or those having occupational exposure limits, present above the levels of disclosure. All substances in the product are either registrered or exempt from registration under REACH.

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CLP:

<u>%:</u>	CAS-No.:	EC No.:	REACH Reg. No:	Chemical name:	Hazard classification:	Notes:
60-100	64742-65-0	265-169-7	01-2119471299-27- 0058	Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil- unspecified	-	L
5-10	64742-54-7	265-157-1	01-2119484627-25- 0099	Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil- unspecified	-	L
Notes:			L: DMSO < 3% (IP 3	346)		

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.
Ingestion:	Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Rinse mouth with water. Get medical attention.
4.2. Most important symptoms	and effects, both acute and delayed

<u>Symptoms/effects:</u> Repeated or prolonged contact may cause defatting of the skin resulting in dryness, cracking and dermatitis.

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

Medical attention/treatments: In case of ingestion: Get medical attention.

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 fr	om 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 precaution	<u>IS</u>
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 section	<u>ns</u>
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 storag	e, 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)	
<u>Specific use(s):</u>	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.
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. 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.
Hygiene measures:	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			
Appearance:	Liquid.		
<u>Colour:</u>	Red.		
<u>Odour:</u>	Almost odourless.		
<u>pH:</u>	Not applicable.		
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		
<u>Solubility:</u>	Insoluble in water.		
Partition coefficient (n- octanol/water):	Not available.		
<u>Auto-ignition</u> temperature (°C):	Not available.		
Decomposition temperature (°C):	Not available.		
<u>Viscosity:</u>	~103 mm²/s @ 40°C (Omega 631 10W-40) ~164 mm²/s @ 40°C (Omega 631 20W-50)		
9.2. Other information			
Other data:	Not available.		

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SECTION 10: STABILITY AND REACTIVITY 10.1. Reactivity Not reactive. Reactivity: 10.2. Chemical stability Stability: Stable under normal temperature conditions. 10.3. Possibility of hazardous reactions None known. Hazardous Reactions: 10.4. Conditions to avoid Conditions to avoid Heat, sparks, flames. 10.5. Incompatible materials Incompatible materials: Strong oxidising substances. 10.6. Hazardous decomposition products Hazardous decomposition None in particular. products:

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:	Based on available data, the classification criteria are not met.
<u>Respiratory or skin</u> 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. 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

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 from residues: EWC-code: 13 02 05

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 nam	<u>e</u>
Proper Shipping Name:	Not regulated.
14.3. Transport hazard class(e	<u>es)</u>
<u>Class:</u>	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 u	iser
Special precautions:	Not regulated.
14.7. Transport in bulk accord	ing to Annex II of MARPOL and the IBC Code
Transport in bulk:	Not regulated.

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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.
	The List of Wester (England) (Amondment) Degulations 2005 (SI 2005 No. 805)

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.

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:2, 3, 8, 15, 16.

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The Omega Trade Mark is the property of ITW, Inc., and is used under license by ITW PP & F Korea Limited.

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